

# mmiR

MILITARY MINIATURES IN REVIEW

# 47

no.



# Tunisian adversaries

The Academy M3 Lee and Tamiya Panzer IIIN go head to head

Multi-Colored Moggie:  
Perfect Scale Modellbau's Unimog  
No Freedom Without Blood:  
Accurate Armour's Humber 1-Ton Truck  
Zavod's 2-Seater:  
Checking Out MiniArt's T-70M  
A Real Stalwart:  
AA's Alvis Stalwart Mk I

\$9.95

CANADA \$15.95



SHORT TAKES • MINI-MEN • MMiR PAINTING GUIDE



# mmiR 47

## C O N T E N T S

### The Desert Confederate ..... 26

*The 1:35 Academy M3 Lee kit receives a serious upgrade from Legend Productions.*

### Multi-Colored Moggie ..... 36

*Perfect Scale Modellbau's Unimog S404.*

### Tiger Support ..... 42

*Detailing Tamiya's "stubby" barreled Panzer III N.*

### No Freedom Without Blood ... 48

*Accurate Armour Humber 1-Ton Truck.*

### Zavod's 2-Seater ..... 55

*Checking Out MiniArt's T-70M.*

### A Real Stalwart ..... 61

*More Aden Action with AA's Alvis Stalwart Mk I HMLC.*

### Features

### Short Takes ..... 8

*Our look at all the latest dope from around the world*

### Mini-Men ..... 68

*The usual peek at what's new on the figure front*

### MMiR Painting Guide Number Three, Part Two ..... 70

*WWII French Armor in Morocco, 1942, by Mike Rinaldi*



Page 36



Page 42



Page 48



Page 55

### ON THE COVER:

The Academy M3 Lee had some bad press when it was first released; Mike Rinaldi fixes the problems with the help of Legend Productions update sets. Mike also offers some great tips for painting and weathering Olive Drab, turn to page 26 for the full story.





# From Your Editor(s)

I don't know if you've heard, but I fired myself. Frankly, I had a terrible attitude problem. I rarely listened to myself and I was frequently belligerent to my reflection in the mirror. I just couldn't take it any longer, so I gave myself the pink slip. It was quite a scene, especially when I had to have security escort me from the building. But thankfully it's over now and I can finally move on.

In all seriousness, I am actually stepping down as Editor of MMiR. This idea goes back quite a few years. Let me fill you in. I have been friends with John "Spud" Murphy for some time now. We met back in the nineties when he was working for Accurate Amour both at shows and as a builder for their display kits. Our friendship is based on the fact that we have similar philosophies about modeling and the hobby in general. Also he's just a pretty good dude. As the years went on, Spud grew more involved in the modeling business and after retiring from the RAF after 15 years of service, he took a job as editor of a British military modeling magazine.

I have always harbored a secret notion that it would be fantastic to work with Spud one day. Eventually this grew into the thought that he could edit MMiR. I regarded him as a very solid modeler and I have always enjoyed his broad sense of humor, which is every bit as warped as my own. I thought he'd be the perfect guy to take over MMiR while I turned my attention to running Ampersand and developing new products. Of course, at the time, this was just an idea. Eventually however, it became something more, and due to a series of fortunate circumstances I was at last able to offer him the job. It took a while to work out all the details, but Spud is now the Editor of MMiR, effective this issue.

What does this all mean? It's simple. There is now just one guy whose sole mission in life is the timely production of this magazine. I haven't been that guy for a long time. MMiR is just one of my responsibilities out of a dozen or more. Spud will be responsible for all aspects of MMiR production, save one, which is layout—that's still me!

I will also oversee Spud's work on the magazine to make sure it remains true to my original vision. I have every confidence that he will be able to do exactly that. Spud has brought all of his substantial number of contacts with him. This includes not only authors but also manufacturers and other important hobby players. Expect to see a lot more exciting diversity in these pages.

## Brass tacks

I can assure all the readers out there that I didn't hire Spud to make the magazine less than it is. The idea is to make it better—way better. First of all, we are now bimonthly. Yep, there will now be 50% more MMiR than before. Spud is and will be instrumental in making sure that we will stay on schedule. To that end, we have instituted a number of changes. Spud came armed with a small but important laundry list of things that he felt were slowing us down. Among them is the long and somewhat laborious Short Takes section. As you'll see, he and I have worked together to make this section easier to read and easier to produce. We have created a series of sidebars showcasing each manufacturer. This is essentially organized by those companies for which we have illustrations those for which we do not. Those without visuals will run alongside the boxes to satisfy those with a penchant for lists (you know you're out there). This way we are able to keep the overall flavor of the section and still provide more concise information on what is new.

You will also see some changes to the Mini-Men section in coming issues, with more emphasis on the construction of the various sets. We will still retain the historical theme that we have established to place the miniatures in their proper context. This section, as well as the Short Takes section, will probably get slightly shorter as the months go on. This will simply be a natural part of our increasing frequency and will not mean an overall reduction in the amount of material covered.

Spud has also instituted several behind the scenes changes that will help us streamline production, all with the goal of keeping us on schedule.

What's my job now? Well, as I mentioned, I will continue to be the layout guy, working with Spud to make the magazine more visually appealing. I will also be able to concentrate on such mundane things as paying bills and making the gazillion little decisions that we need to run this little company. My biggest responsibility will be the organization and production of our popular Modeler's Guide series. This will involve a fair amount of delegation (I have staff now for this, too!), but also a fair amount of building and research, both of which I am looking forward to.

Spud is a voracious builder and he will be contributing features with much greater frequency than I was able to do. That is not to say that I will be disappearing from these pages. I will continue to be seen here, and I may even weigh in with an editorial now and again, just in case Spud gets stuck!

And so, let me turn it over to the man of the hour: John "Spud" Murphy:

*Taking over from Pat as Editor of MMiR is a real honor for me. Ever since the mid-1990's when I first got involved in writing articles for various UK and European military modeling magazines, MMiR was the biggest influence on how I wrote those articles. I loved the laid-back and lighthearted nature for which MMiR is world-famous.*

*Please rest assured that I won't be messing too much with the format or adding too much of that British "stiff upper lip" and losing the heart and soul of MMiR. Anyway, even if I wanted to, Pat has taken up permanent residence perched on the top of my computer screen, sort of like a cross between Gollum from Lord of the Rings and one of the vultures from Disney's Jungle Book film. I just wish he would put some clothes on while he's there!*

*Since I will be dividing my time between sunny south Florida and the UK, I will be able bring news and features from both sides of the Atlantic. I hope to represent us at as many of the major military and modeling events as I can pedal to on the Ampersand bicycle! Enough—I will babble no more, so please read on. I hope you enjoy this, my first issue of MMiR.*

—Pat Stansell & Spud Murphy



## Editor

JOHN "SPUD" MURPHY

## Publisher

PAT STANSELL

## Editorial Contributors

JEFF KLEINHENZ

RICK LAWLER

HUGO LAYTEN

MIKE RINALDI

KEYSER SOZE

## Mini-Men

JEFF KLEINHENZ

## Stair Fallerdowner

SARAH "PEGLEG" WOOD

## Advertising Sales

EMAIL: MMIRPAT@AOL.COM

## Subscription Manager

JEFF KLEINHENZ

EMAIL: MMIRPAT@AOL.COM

## Some of the Photography

PAT STANSELL

## Some of the other Photography

JOHN MURPHY

RICK LAWLER

MIKE RINALDI

## Pre-building and Shelf Emptier

BRIAN KEOUGH

## Accounts Payable Clerk Moscow Office

DASILA CHEKHOV

## Assistant Director of Moral Support

HUGO GURLL

## Flatulent Buffalo

TONY BOSTATIBES

## Military Miniatures in Review, Number 47, 2009.

MILITARY MINIATURES IN REVIEW is published quarterly by Ampersand Publishing Company, Inc. 21 SW 1st Ave., Delray Beach, Florida 33444. Tel: (561) 266-9686 Fax: (561) 266-9786. Email: mmirpat@aol.com. Periodicals postage paid at Delray Beach, Florida and at additional mailing offices. POSTMASTER send address changes to Ampersand Publishing Company, Inc. 21 SW 1st Ave., Delray Beach, Florida 33444.

For information and rates in the UK and Europe contact: Historex Agents, Wellington House, 157 Snargate Street, Dover, KENT CT17 9BZ Tel: 01304 206720 Fax: 01304 204528 email: sales@historex-agents.com

©2009, Ampersand Publishing Company, Inc. All rights reserved. This publication may not be reproduced in part or in whole without written permission from the publisher, except in cases where quotations are needed for reviews. Postmaster: Send address changes to Military Miniatures, Ampersand Publishing Company, Inc. 21 SW 1st Ave., Delray Beach, Florida 33444.

Military Miniatures in Review will only return material if return postage is included with submission. MILITARY MINIATURES IN REVIEW is not responsible for damage which occurs in the mailing process.

Throughout this publication, trademarked names are used. Rather than put a trademark symbol in every occurrence of a trademarked name, we are using the names only in an editorial fashion and to the benefit of the trademark owner, with no intention of infringement of the trademark.

Created in the U.S.A.





# Short Takes

what's new, anyway?

## Aber

Aber has put out a nice set of detailing goodies to put a hurtin' on your new Tamiya truck with 35227, Opel Blitz (Tamiya), \$29.99. Love for the Tamiya Jagdtiger is inbound. 35228, Jagdtiger (SdKfz 186) - Vol. 1 basic set and 35229, Jagdtiger (SdKfz 186) - Vol. 2 Fenders, take us to town.

Most of the news from the Aber front, though, concerns a whopping nine sets for the 1:16 scale Tiger II: 16032, German 2m antenna; 16033, Tiger II Henschel - Vol. 1 - Basic set; 16034, Tiger II - Vol. 2A - Grilles; 16035, Tiger II - Vol. 2B - Grilles; 16036, Tiger II Henschel - Vol. 3 - Anti Mine Mesh; 16037, Tiger II Henschel - Vol. 4 - Armour for grilles; 16038, Tiger II - Vol. 5 - Front Fenders; 16039, Tiger II - Vol. 6 - Rear Fenders and 16040, Tiger II - Vol. 7 - Side Fenders. Note that these sets are compatible with both Trumpeter and Tamiya.

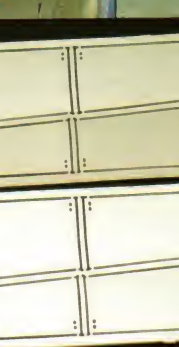
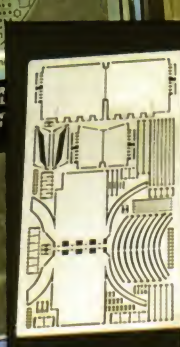
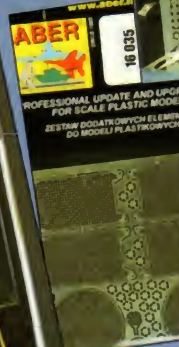
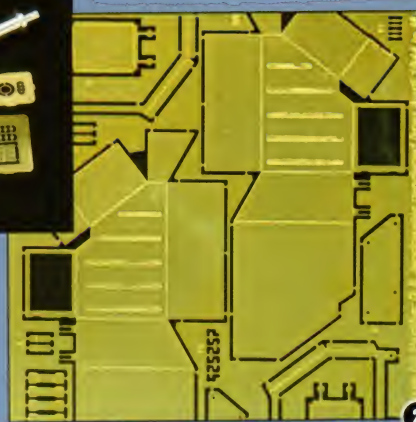
There's an expansion of their excellent turned aluminum barrel series: 35L71, 5cm barrel for A/T gun Pak 38 (1); 35L75, 75mm barrel for KwK 40L/43 with single baffle muzzle brake for PzKpfw VI Ausf. F2, \$24.99; 35L77, 75mm Pak 39 L/48 barrel for Hetzer or E10, \$12.99; 35L78, 88mm KwK 36 L/56 Barrel with late muzzle brake for Tiger I middle & late, \$24.99 and 35L79, 75mm Pak 40L/70 gun barrel



for Jagdpanzer IV or E25, \$12.00.

You'll positively adore 35A117, Rear boxes for Panther G & JagdPanther produced from April 1944 in M.N.H. (2). Also out now is a nice little accessory for German WW2 armored cars and APCs: 35R28, German width indicator

for SdKfz 231, 232, 250 and 251, \$11.99. For more complete information on all the detailing greatness that is Aber, visit <http://aber.net.pl> or the website of their North American importer, [www.airconnection.com](http://www.airconnection.com).





## Adalbertus

The following offering may be a bit off the beaten path for MMR, but we really like it when World War One subjects pop up on the radar: ADB54001, *Belina's Ulans Officer 1915 - Lieutenant Boleslaw Wieniawa*, €22.00. The uniform has a really interesting mix of Napoleonic and Imperial German elements that figure freaks should really dig.

The Adalbertus website ([www.adalbertus.com.pl](http://www.adalbertus.com.pl)) stocks a lot of great lines, so definitely stop by.

## AFV Club

These guys have found a sure winner in their Centurion kit, so they have gone ahead and released yet another variant: 35106, *Centurion Mk V w/ Dozer*, \$52.00. Hopefully they will keep going with this one. So many variants, so much to give, so little time...

We also found a price on the 1:48 scale 251 halftrack: 48007, *SdKfz 251/1 Ausf. C*, \$27.98. Quarter scale fans will no doubt dig this one.

There is also a slew of announcements from the Club, although prices are not available at time of writing: 35134, *M1134 Stryker ATGM*; 35139, *38cm RW6-1 L 5.4 Assault Rocket for Sturmtyger*; 35143, *T-34/76 1942 Factory 112 (Includes Full Interior)*; 35161, *M5A1 Stuart Late Type*; 35167, *Churchill Mk III AVRE*; 35168, *Track Link for German Schützenpanzer Marder*; 35S50, *SdKfz 251/3 Ausf. C*; 48006, *German Sturmtyger (Early Chassis type) and Brass Ammo for 6pdr guns*. This lineup looks pretty juicy to us. The gents over at Merit International ([www.merit-intl.com](http://www.merit-intl.com)) import AFV Club and Hobby Fan to the U.S. and their website is the best place to go for accurate, up-to-date information on these lines.

## Academy

Well, it's official. Academy has put out a Merkava IV in styrene, which is great news for modern armor fans: 13213, *Merkava IV*, \$44.00. There has also been news circulating of two new modern subjects from this Korean company, the Swedish Army CV9040 infantry fighting vehicle and the Vietnam-era M50 ONTOS. We will keep you posted. Stay tuned to [www.academy.co.kr](http://www.academy.co.kr) for more information.



## ATAK

The Polish company ATAK continues to put out their very fine resin zimmerit sets in dribs and drabs. The newest one we've seen is 35044, *Zimmerit "Brumbär" Mid Production (Dragon)*, \$36.99.

To see the full ATAK line, you have two choices: the company has its own home page at [www.atakmodel.com.pl](http://www.atakmodel.com.pl), but the North American importer, Air Connection ([www.airconnection.on.ca](http://www.airconnection.on.ca)), also features a nice profile of this line.

## Accurate Armour

Accurate Armour has not slowed down a bit lately. They seem to move from one unique subject to another faster than anyone expects. Lately, Derek Hansen and company have zeroed in on the Alvis Stalwart. As it stands right now, Accurate Armour offers three variants of the truck. K160, *Alvis Stalwart Mk II HMLC*, \$76.59 depicts the FV622 Mk 2 version for ground support, cargo and general duties. The second variant is K161, *Alvis Stalwart R.A. Limber*, \$85.09. This kit is of the FV623 Mk 2 Royal Artillery Ammunition Limber version with Atlas crane. The



Why, K168, *DYSON 50 Ton Drawbar Trailer*, \$104.35, of course!

As usual the best place to look up all of this madness is at their home-page, [www.accurate-armour.com](http://www.accurate-armour.com)



third variant is K162, *Alvis Stalwart REME Fitters vehicle*, \$93.60. It builds into the FV624 REME Fitters version also with the Atlas crane.

All three kits feature full suspensions, accurate tires with subtle bulging, cabs with full internal details, extensive photo-etch detail sets and full color decals.

Remember the Thornycroft Mighty Antar

tractor we mentioned in the last issue? Well, there are more on the way! Check out K164, *Mighty ANTAR Mk 2 (5th wheel) Tractor*, \$148.94. This is yet another in a planned series of five ANTAR tractor models. The extensive 1:35 scale resin model kit by David Jane depicts the original FV12001 Mk 1 Ballasted version for towing drawbar trailers.

The kit comes with a photo-etch detailing set, extensive full color decals and full chassis, cab interior, engine, transmission and winch details. The huge ballast body includes ballast weights, davit and all internal/external fittings.

And what does one pair with such a thing?







## Alpine

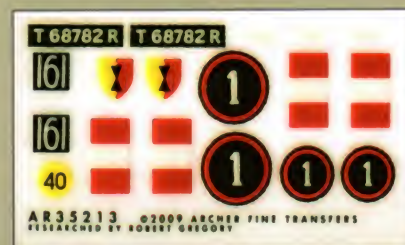
Warning: the following announcements may give you the urge to yodel from a mountain top! Here we go: 35075, Joachim Peiper in the Ardennes, \$16.50; 35076, LAH NCO in the Ardennes, \$16.50; 35077, LAH Officers in the Ardennes, \$32.00; 35078, British Armored Crew #1, \$16.95; 35079, British Armoured Crew #2 and puppy, \$16.95 and 35080, British Armored Crew Set and puppy, TBA.



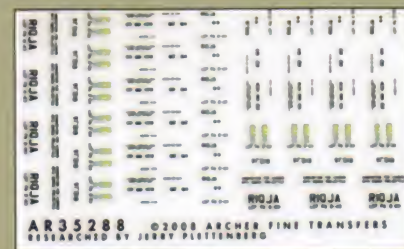
We have also gotten word that they have another 1:16 scale release: 16005, WSS Gebirgsjäger "Prinz Eugen," \$45.00. It seems like not many companies have the guts to put out the big-scale figures anymore and we are glad that Alpine is bucking that trend. The Alpine website ([www.alpineminiatures.com](http://www.alpineminiatures.com)) has a showcase of their complete line finished by some of the best painters in the hobby and is worth a look anytime, day or night.

## Archer

As usual, we have good news from the Archer camp. A lot of companies are going to be jumping on the bandwagon with markings for the AFV Club Churchill, but Archer transfers will be the top choice for many. Right now, they have two new offerings for this subject: AR35213, Churchill Mk III North Irish Horse, 25th Army Tank Brigade, Tunisia, \$11.50 and AR35294, Churchill Mk III 3rd (mixed) Division, 33rd Army Tank Brigade 14 Troop, C Squadron, United Kingdom, 1942, \$11.95.



For all of us, the devil is in the details and detail is what Archer is all about. For instance, AR35290, 105mm HE ammo box stencils, \$5.95; AR35293, 37mm ammo box stencils, \$6.95 and AR88022, Surface Details #22 Double-row rivets, \$14.95 are guaranteed to soothe cravings worldwide.



We all know those insignia sets for figures in 1:35 scale. Now we are starting to see some of this greatness in 1:48 scale, too: FG48020, British rank patches, \$6.95; FG48048, German uniform patches, \$5.95 and FG48055, U.S. helmet insignias, \$5.95.

Browse and shop for everything from Archer at [www.archertransfers.com](http://www.archertransfers.com)

## Black Dog

If your latest quarter scale project looks a little naked, you probably need to take a look at Black Dog's lineup of 1:48 scale resin accessories.

The latest updates on this line can always be found on their website ([www.blackdog.cz](http://www.blackdog.cz)). We recently found a shop that carries Black Dog here in the U.S. The Track 48 shop is at [www.track48.com](http://www.track48.com).



There you can find the complete listing of 1:48 scale items from Black Dog, amongst others. Here's the latest news: 48043, British SAS Jeep North Africa 1942, 34 resin parts (Tamiya), \$16.00; 48044, M26 Pershing Accessories set, 17 resin parts (Tamiya), \$16.50; 48045, Marder III Accessories Set, 13 resin parts (Tamiya), \$19.50; 48046, Firefly Hes-



sian Tape Camo Net, 6 resin parts (Tamiya), \$20.50 and 48047, Cromwell Hessian Tape Camo Net, 11 resin parts (Tamiya), \$22.60.



But wait, there's more! These gents have also started to turn out items in 1:72 scale. This stuff is so new that pricing is not available at time of writing, but here's a list of what we saw: 72001, USMC LAV-25 Iraq war accessories set (Trumpeter); 72002, M1126 Stryker Iraq war accessories set (Trumpeter); 72003, M1A1 Abrams Iraq war accessories set (Dragon); 72004, AAVP7A1 RAM/RS Iraq war accessories set (Dragon); 72005, AAVP7A1 RAM/RS EAAK Iraq war accessories set (Dragon); 72006, M2 Bradley Iraq war accessories set (Dragon); 72007, T72 M1 CZ conversion set (Revell); 72008, M4A3 sandbags accessories set (Dragon); 72011, U.S. modern equipment 3 accessories set and 72012, U.S. tank crew and civilian.

## Azimut

In the last two issues we gave you reports of the peculiar mania Azimut has developed over the Revell Germany "Wolf" kit. Well, it appears that the fever has not abated as they have another two modification kits for this subject. First up is a limited edition conversion: 10025, Peugeot P4 w/ cal. 50 MG, \$42.26. The second offering is 35110, Panhard VPS Special Forces, \$47.55. As previously stated, these conversions really go to town on the kit and you are left with more resin than styrene when assembly is done. There are also two more additions for those interested in modeling the Bronco V-1 rocket on its launcher: 10024F, V-1 Final Section Ramp w/ Deflector, \$33.27 and 10024S, V-1 Additional Ramp Section, \$29.07. These are also limited edition offerings, so get 'em while they're hot.

This one hit us like a bolt from the blue: 10019, Azimut Limited Edition IDF Achzarit APC, \$186.92. This is a full kit, with the lower hull parts done by Trumpeter.

Azimut also wasted no time in jumping on the

new Zvezda L4500 Truck: 35381, Mercedes 4500a Wheels Set, \$15.92. You may be able to find some Azimut products in better U.S. shops. If not, surf over to [www.azimutproductions.com](http://www.azimutproductions.com) to do your shopping for this unique French line.

## Cammet Limited

We recently discovered this little English company, which mainly specializes in finishing supplies but also offers some very interesting resin items on their website (<http://cammett.websds.net/>). They recently added two modification kits to their armor line: AFV35001, Replacement Krupp Turret for the E100 Trumpeter/Dragon Kits, \$22.95 and AFV35002, Radiators and Fan Housings for the E100 Trumpeter/Dragon Kits, \$3.95.

We also stumbled upon some Russian KV models in 1:16 scale: TankKVI, 1:16 Russian WWII KV-1 - All resin and etch brass, \$225.10; TankKVII, 1:16 Russian WWII KV-2 - All resin and etch brass, \$225.10 and TankKVIIGC, 1:16 Russian WWII KV-2 German Captured Version - All resin and etch

brass, \$225.10. These models actually showed up about two years ago and we have been looking high and low for information on them ever since.

We also saw a really neat-o little mod for the Italeri S-100 Schnellboot: Camb35001, S-100/S38 Schnellboot 6 Depth charges and 2 rails, \$12.50. They have also announced canvas railing covers for this same model. Stay tuned right here and we will bring you the news on this as it breaks.

## Cromwell

Cromwell Models is no stranger to the Churchill tank. They have offered a wide range of products for this subject for a couple of years now. Lately, they



## The Body

Hungarian figure meister Kriztian Bodi has been busy lately with the release of several very nice WW2 figures: 35003, German field officer, \$16.20; 35004, U.S. Officer, \$16.20; 35005, U.S. Mechanic, \$15.70 and 35007, German Driver for German Heavy Cargo Truck (Zvezda), TBA.

We also spotted these spankin' new 1/9 scale resin busts during a recent visit to the company's website, [www.thebodi.eu](http://www.thebodi.eu): MB001, German Panzer crew, \$49.90 and MB002, Russian soldier, \$49.90. These figures are also available in the U.S. through Military Miniatures Warehouse ([www.milminwh.com](http://www.milminwh.com)).



have turned their attention to the excellent AFV Club offering to good effect. Brace yourself, it's quite a list: 75mm Mk VI Cast Turret, Radio & Applique Hull Armor, \$17.50; 95mm Armed Mk V Cast Turret, Radio & Applique Hull armor, \$17.50; 75mm Mk III Uparmored Gun, Hull and Turret Applique Armor, \$7.50; NA75 Cast Turret, Radio & Applique Hull armor, \$17.50; Mk IV AVRE Petard Cast Turret, Radio & Hull Attachment Points, \$19.50; Heavy Track - link and length, \$10.00; Light Track - single link, \$10.00; Wading Trunking & Dieppe pattern Exhaust Extensions, \$9.50; Wading Trunking & D-Day pattern Exhaust Extensions, \$9.50; 6pdr Armed Early Mk IV Cast Turret, Radio & 5" Rear Hull Plate, \$17.50; 75mm Armed Late Mk IV Cast Turret and Radio, \$16.50; Mk III AVRE Petard, Radio, Seats & Hull Attachment Points, \$10.50; Mk III Dieppe Heavy Track, 5" Rear Plate, Radio, Seats, Rear Mudguards, Spare Track, Wading Trunking & Exhaust Extensions, \$25.00 and Mk I Rework Italy complete Mk I Turret, Optional Guns, 5" Rear Plate, Hull Gun & Breech, \$25.00. The Cromwell site (<http://www.xs4all.nl/%7Ecromwell/>) appears to be down right now, but you can contact the main man, Gordon Brown, at [cromwellmodels@yahoo.co.uk](mailto:cromwellmodels@yahoo.co.uk)

## Decalomanics

Decalomanics have a single new offering for you this time around. Guess what it's on? Just guess. That's right, the Churchill. This new sheet, Churchill

## Concord

There are two new titles from Concord, the reference book company that never sleeps: 069, British Armour in North-West Europe Volume 1: Normandy to Arnhem, \$18.95 and 528, Waffen SS in Action, \$14.95. A complete list of all their books, which are available at hobby shops everywhere, is at [www.concord-publications.com](http://www.concord-publications.com), but Dragon USA ([www.dragonmodelsusa.com](http://www.dragonmodelsusa.com)) is their main importer and a great place to hunt down a particular title.

## Waffen-SS



## CMK

CMK has been with us for a while now and their line features a wide array of conversions and accessories for all sorts of subjects. This is a prime place to hunt for an interior set if you are in the market for one. A visit to [www.cmkkits.com](http://www.cmkkits.com) will almost always leave you with a richer collection and a lighter wallet.

Here are the latest updates that we have received. CMK has two new full kits in 1:35 scale: RA040, 10.5cm LG 42/1, \$25.20 and RA041,



37mm U.S. Antitank Gun Type M3, \$25.20. They also rolled out some new 1:35 detail sets: 3104, SdKfz 385 Kesselwagen (Tamiya), \$56.00; 3105, StuG IV Interior Set (Dragon), \$44.09; 3106, StuG IV Driver's Set, \$31.50; 3107, PzKpfw IV Ausf. D/E Driver's Set (Dragon), \$37.79; 3108, Opel Blitz "Wood cab" (Tamiya), \$14.49; B35027, Quad Gun Tractor Seats Ford/Chevrolet (Tamiya/Italeri), \$4.79; B35028, German locomotive and wagon Loklaterne (Lamps) 1920,

Sd.Anh. 105 Feldofen



\$4.79; B35029, German locomotive and wagon Loklaterne (Lamps) 1941, \$4.79 and B35030, German locomotive and wagon Loklaterne (Lamps) 1950, \$4.79.

Moving right along, they are offering a new 1:48 scale full kit that should appeal to diorama builders: 8037, SdAnh 105 Feldofen/German Field Bakery full kit, \$37.79.

These guys seem to have a peculiar mania for 1:72 scale railroad items. Here is the latest in that category: MV051, BR-64 Kriegslokomotive

Full Kit, €112.50; MV093, Armored Engineer Vehicle GPM PT2, \$86.68; MV094, Tender for BR-53 Locomotive (Hobby Boss), \$86.68 and MV095, German Locomotive Armoring for locomotive boiler (Hobby Boss), \$27.72.

Mark IIIs, \$12.00 looks pretty nice. It has markings for eight vehicles, two Canadian and six British. There are even markings for an AVRE if you're into that type of thing. Surf on over to [www.decalomanics.net](http://www.decalomanics.net) to browse and shop for their entire line of decals.

## Dioramas Plus

Our buddies over at Dioramas Plus have been turning out some pretty nice ruins lately to satisfy the cravings of diorama builders everywhere. We introduced you to them in MMiR 46 with their latest announcements. All of their building kits include hydrocal plaster castings that are easy to assemble. Laser cut wooden window frames and rubble are also included in some of their offerings, making these ruins a very complete package. This time around, we'll fill in the blanks by filling you in on the rest of this product line as seen on their website ([www.dioramasplus.com](http://www.dioramasplus.com)). The list includes DP4, Small Ruins Kit, \$19.95; DP5, Brick Factory, TBA; DP6, Stone Ruins Kit, \$19.95; DP8, Rubble and Bricks Kit, \$9.95; DP9, Cornered! Kit, \$14.95; DP10, Brick Sidewalk Set Kit, \$19.95 and DP11, Laser Cut Shattered Glass, \$9.95. The laser cut shattered glass has been available in their kits previously, but not as a separate item.

## Echelon

Echelon Fine Details is always one of the first places we look for markings. Their decal sheets are some of the finest in the world. The selection is really diverse and the decal sheets are very complete and of the highest quality. The same goes for their selection of mirrors and reflective items. We only saw two new decal sheets from them: D356061, U.S. Army OIF Battalion Numbers (Part 3), \$7.50 and D356062, U.S. Army OIF Battalion Numbers (Part 4), \$7.50.

## Editions Du Barbotin

It's unusual to see titles on subjects that aren't French from this publisher, but it's been known to happen from time to time. The two newest titles from Editions Du Barbotin are Focus No. 3: Tiger I, €9.95 and Centurytracks No. 3: German Antitank Guns and Tractors 1933-1945, €14.50. The Tiger book was produced with coordination from Saumur and features period photos, computer graphics, and an extensive walk-around of the steel-wheeled Tiger I housed at that famous tank museum. The second title is an interesting look at PaK anti-tank guns and their respective prime movers. These books can be hard to find in the U.S., but you can order direct from the publishers website, [www.minitracks.fr](http://www.minitracks.fr)





## Dragon Models

Apparently no one at Dragon Models is all that worried about the recession. They are on their second incarnation of the *Committed to the Modeler* campaign and have also started a new sub-line called Orange Box. Here's a look at the new 1:35 scale list: 6259, 15cm sIG33 (SF) auf PzKpfw I Ausf.B (Smart Kit), \$64.95; 6300, Panzer



IV H Late Production, TBA; 6351, SdKfz 186 Jagdtiger Porsche Production Type, \$48.95; 6379, U.S. Marines Guadalcanal 1942, \$13.95; 6393, Jagdpanther G1 Late Production (Smart Kit), \$66.95; 6421, Quad Gun Trailer M55



(Smart Kit), \$25.95; 6445, 7.5cm PaK 97/38 w/ Heer Gun Crew Premium Edition, \$32.95; 6465, SdKfz 184 Elefant with Zimmerit, \$65.95; 6470, SdKfz 138/1 Geschützwagen 38 H für sIG 33/1, \$56.95; 6491, Hunting the Parti-



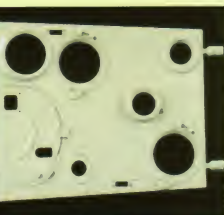
sans Yugoslavia 1943, \$13.95; 6511, M4 Sherman 75mm Normandy, \$66.95; 6528, 8.8cm Raketenwerfer 43 (Püppchen) with Fallschirmjäger, \$19.45 and 6530, German Self-Propelled Gun Crew Premium Edition, \$14.95.



The D-boys have been firing them out in 1:72 scale too: 7321, PzKpfw VI Ausf. F1(F), \$25.95; 7351, SdKfz 251/22 Ausf. D w/ 7.5cm PaK 40, \$17.95; 7364, SdKfz 251/7 Ausf. D Ardennes w/ LAH Panzer-grenadiers 1944, \$25.95; 7370, Tiger I Initial Production, \$25.95; 7371, SdKfz 251/1 Ausf. C & 3.7cm PaK 35/36, \$24.95 and 7373, Beutepanzer M4A2 75, \$18.95.



Beutepanzer M4A2 75, \$18.95.



These prices may leave you with sticker shock, but they are only the suggested retail. Most good hobby shops usually offer a discount of 10 to 15 percent.

The Cyberhobby line is also going strong with lots of those

obscure variants and accessory kits: CY3852, Magic Track for Panther Ausf. A/D (Kgs 64/660/150), \$24.95; CY3856, Magic Track for Pz II



Ausf. A/B/C (Kgs 67/300/90), \$31.95; CY3863, DS Track for Sherman (T80), \$13.95; CY6151, SdKfz 165 Geschützwagen III/IV für Munition, \$46.99; CY6340, Berge-Panther mit aufgeset-



ztem PzKpfw IV turn als Befehlspanzer, \$46.99; CY6481, SdKfz 138/1 Geschützwagen 38 M mit 3cm FlaK 103/38, \$42.95 and CY6529,



Beutepanzer M4A2 75, \$46.95. All that German in the kit titles definitely gives them some flavor.

The new Cyberhobby Orange Box Range are value-packs featuring older kits with some



remastered parts and a figure set thrown in for good measure. So far, we have seen three of these released: CY9101, StuG III Ausf. F, \$33.25;



CY9102, M4A4 75mm, \$33.25 and CY9103, Panther II, \$38.80.

Last, but not least, we managed to secure a photo of the impending SdKfz 7 cargo version. You're welcome.

The latest release information can always be found at [www.dragon-models.com](http://www.dragon-models.com) and you can shop for all of the latest Cyberhobby offerings at [www.dragonusa.com](http://www.dragonusa.com)



## Eduard

These guys must eat their Wheaties every morning because they manage to stay current no matter what the styrene manufacturers put out. Eduard can be found just about everywhere, but



the company website, [www.eduard.cz](http://www.eduard.cz), provides extensive profiles and updates and is also an option for ordering. Here is look at the new stuff in 1:35 scale: 36046, Flakpanzer 38 (Gepard) exterior (Italeri), \$26.95; 36050, M7 Priest exterior (Academy), \$29.95; 36051, M7 Priest deep water fording equipment (Academy), \$36.95; 36054, SdKfz 251/3 Ausf. D (AFV Club),



\$34.95; 36055, M7 Priest fenders (Academy), \$29.95; 36056, Armored Carrier UE (Tamiya), \$29.95; 36057, PaK 97/38 75mm AT (Italeri), \$24.95; 36058, Flakpanzer 38 (Gepard) Ammo Boxes (Italeri), \$26.95; 36059, Spaepz 2 Luchs A1/A2 (Revell), \$34.95; 36060, M16 Halftrack Multiple Gun (Dragon), \$34.95 and 36061, M1127 RV (Trumpeter), \$34.95.

They also released two new Big Ed sets that include multiple individually sold sets of photo-etch for the really detail-oriented: BIG3555, German Cargo Truck 3-ton 4x2 (Tamiya), \$52.95 and BIG3556, DUKW British Army (Italeri), \$59.95.

but the best place to shop is still the Echelon home page, <http://pachome1.pacific.net.sg/~kriegsketten>

## EGYS

EGYS is a little Italian accessory manufacturer that pops up on the radar from time to time. The latest thing we saw from them is a nifty decal sheet to mark up the Trumpeter Centauro just like the UNIFIL vehicles seen in Blue Steel's book, White

Thunder: EGD35006, Decal for Spanish Army VRC-105 Centauro (Trumpeter), €11.00.

The other news is that they now have a working website where you can go to check them out: [www.egysmodels.com](http://www.egysmodels.com)

## Fighting 48th

Fighting 48th is still going strong on delivering quarter scale resin goodies. They tend to stick to

## Griffon Model

We always like to see the latest from Griffon Model because they really go to town on their subjects. Pretty much any part that they can find on a model kit that can be improved or replaced with photo-etch is included in their sets. They have also started to release their sets in levels according to the modeler's particular illness, from a mild detail fetish to a deep and unrelenting psychosis. To get an idea of what we mean, let's take a look at the sets for the Dragon M16 halftrack kit. The Big Kahuna set is: SBPL35001, WWII American M16 Multiple Gun Motor Carriage Royal Edition (Dragon), \$179.95. This set includes 12, count 'em, 12 frets of photo-etch! These include things like a full engine compartment hood, fighting compartment armor plates, armor plates for the M45 turret, and even jerrycan racks. In addition, you also get turned brass .50 caliber barrels and cooling jackets and dashboard markings. One step down from this is BPL35005, WWII American M16 Multiple Gun Motor Carriage Premium Edition (Dragon), \$64.95. This set also has the 12 photo-etch frets, but leaves out the turned brass barrels and a few other things. If these super sets are too scary, many of these items can be bought individually: L35026, M16 Multiple Gun Motor Carriage Fighting Compartment Folding Side & Rear Armor, TBA; L35A034, Rear Vehicle Stowage & Battlefield Modified Jerrycan Racks for American M16/M13 MGMC, \$10.95; L35A035, Update Set for Rear Suspension with Spring Loaded Idler for WWII American Halftrack Vehicles, \$5.95; L35A036, Engine Compartment Hood for WWII American M2/M3



Halftrack Vehicles, \$20.95 and L35A037, Update set for driver's compartment of WWII American M2/M3 Halftrack Vehicles, \$18.95.

As if that wouldn't leave any normal man gasping with fatigue (females usually have the good sense not to pay attention to these things), they have done the same thing with Dragon's new Grille self-propelled gun: BPL35004, SdKfz 138/1 Ausf. M 15cm sIG 33/2 "Grille" Premium Edition (Dragon), \$59.95. One step down on the insanity scale is L35025, WWII German SdKfz 138/1 Ausf. M 15cm sIG 33/2 "Grille" (Dragon), \$36.95. These sets are also available individually, just like the M16 sets: L35A027, 15cm Shell Projectile Containers for WWII German SdKfz 138/1 Ausf. M "Grille" (Dragon), \$11.95; L35A028, 15cm Shell Cartridge Storage Bins for WWII German SdKfz 138/1 Ausf. M "Grille" (All Variants), \$13.95 and L35A029, WWII German Cartridge Cases for 15cm sIG 33 (All Variants), \$9.95. To get a further breakdown on the contents of any Griffon offering, go to [www.griffonmodel.com](http://www.griffonmodel.com) or Dragon USA ([www.dragonusaonline.com](http://www.dragonusaonline.com)), their main U.S. importer.

# ARCHER

The world's largest manufacturer of dry transfers for model builders  
CELEBRATING 20 YEARS SERVING YOU

## INSTRUMENT AND PLACARD SETS

High resolution printing yields crisp, clean transfers that perfectly fit the kit instrument panels. Clear lenses can be made quickly with 5-minute epoxy. All sets come with Wet Media paper for easy positioning and placement schematics

We **UNCONDITIONALLY GUARANTEE** that you'll be pleased, and always have... since 1989.



### US M2, M3, M16 Halftrack series

Sheet contains enough transfers to complete four 1/35 vehicles. 1/16 sheet does one. Includes all instruments and placards.

1/35	AR35240 (shown)	\$8.95
1/16	AR16013	\$9.95



### Krupp Protze instruments and placards

Builds two Tamiya Krupz models. Sheet includes instruments and placards which fit the incorrect kit instrument panel PLUS correct instruments and placards which can be used with minor kit modifications.

1/35	AR35292	\$6.95
------	---------	--------



### Opel Blitz instruments, placards & details

Builds three TAMIYA Opel Blitz models, including the correct instruments and placards for dash and firewall. Also includes a sheet of Surface Details™ to add the grille Logo, jack placard (with extras), rear axle casting symbol/number and extra late war fuel drum details to convert kit parts.

1/35	AR35291	\$7.95
------	---------	--------



### GMC 2 1/2 ton instruments and placards

Enough for 6 vehicles with extras. Designed specifically for the Tamiya kit.

1/35	AR35242	\$6.95
------	---------	--------

## ALSO AVAILABLE NOW

<b>Jeep instruments and placards</b>		
1/35	AR35241	\$5.95
<b>DUKW instruments and placards</b>		
1/35	AR35243	\$7.95
<b>M4 tractor instruments and placards</b>		
1/35	AR35274	\$7.50
<b>Humvee instruments and placards</b>		
1/35	AR35282	\$12.95
<b>German instruments and placards</b>		
1/35	AR35214 (instruments)	\$8.50
1/35	AR35215 (placards)	\$6.50
<b>US/Allied instruments and placards</b>		
1/35	AR35209B (instruments)	\$8.95
1/35	AR35210S (black/silver placards)	\$9.95
(Other color combinations available. Check the website)		

## VISIT [archertransfers.com](http://archertransfers.com) FOR MORE!

**ACCURACY** Created from photographs, not copied from book illustrations.

**INSTANT GRATIFICATION** Apply in minutes and keep working.

**\$2 WORLD WIDE SHIPPING** on orders under \$50, FREE on orders over \$50 to ANYWHERE

**SECURE ON-LINE ORDERING**

Or order by fax, voice mail or postal mail. MC, VISA, AMEX, CHECKS, MO, and PAYPAL accepted

**OVER 500 sheets** in our product line

Dry transfers shipped in cardboard mailers. All orders insured at no additional cost

**DEALER INQUIRIES WELCOME - ALL PRODUCTS IN STOCK**

ORDERS FILLED WITHIN 24 HOURS



## ARCHER FINE TRANSFERS

P.O. Box 1277, Youngsville, NC 27596

[archertransfers.com](http://archertransfers.com)

24 hour FAX/VOICE MAIL: (919) 570-1026

(Office open for calls 8 a.m. - 8 p.m. Mon. through Friday, Eastern Time USA only)



## Hauler

We've seen a few new items from Hauler, where they seem to be way ahead of their importers when it comes to new releases since we couldn't find any pricing information as of press time. The new 1:48 scale stuff is: 48276, Kfz 305 Blitz (Tamiya/Supermodel); 48277, SdKfz 251/1 Ausf. C Interior (AFV Club); 48278, SdKfz 251/1 Ausf. C Exterior (AFV Club); 48279, SdKfz 251/1 Ausf. C Kisten (AFV Club); 48280, Opel Blitz Wheels (Tamiya/Supermodel) and 48281, SdKfz 250-251 front wheels Ski (AFV Club/Tamiya). Hauler recently started busting out accessories in 1:35



scale and we saw one new item here: HLU35015, Soviet tools. Hauler can be found at better hobby



retailers everywhere. Go to [www.hauler.cz](http://www.hauler.cz) for updates and an in-depth look at their products.

## HobbyBoss

HobbyBoss has been focusing on modern subjects lately with multiple variants of their base kits. We picked up news of their treatment of the U.S. Marines Landing Vehicle Tracked Personnel lately: 82409, LVTP-7, TBA; 82413, AAVP-7A1 Assault Amphibious Vehicle (w/ mounting bosses), \$69.99 and 82415, AAVP-7A1 RAM/RS, TBA. They also threw out another Leopard 2 variant: 82432, Spanish Leopard 2E, TBA.

For more information on HobbyBoss kits, look them up at [www.hobbyboss.com](http://www.hobbyboss.com)



Shermans and British stuff. This is good since a lot of accessory companies tend to concentrate on the German side of things. Here's the skinny: 004, Universal Carrier Track replacement parts 1:48, \$15.00; 006, Sherman Crab Mk I Flail Mine Clearing Tank Conversion Set 1:48, \$23.00 and FIG001, British Tank Crew Set 1, Cast Resin 1:48, \$6.00. Fighting 48th has decals too if you are looking for some unique markings in 1:48. The last two releases are: T48004, Decals for 2 Famous Sherman VCs, \$3.95 and T48010, Normandy Crabs Decals, \$3.75.

Check out their home page at [www.fighting48th.com](http://www.fighting48th.com)

## Friulmodel

Much to our delight, Friul keeps laying out those wonderful white metal track sets.

Here are their new offerings: ATL-94, Sherman T-56 E1 type, €27.00; ATL-95, Carro Armato L/6 Semovente 47/32 (L40), €27.00; ATL-96, SU-76/T-30/T-40/T-60/T-70 K-61 (LUG), €27.00 and ATL-

## Kamizukuri

All the greatness that you can ever associate with laser-cut paper plants can be found in Kamizukuri products. But seriously folks, this is a great way to add that extra bit of spice to your model setting. The most recent development at Kamizukuri is a new sub-line called Irodori that concentrates mainly on leaves: B-1, Autumn Leaves (maple) yellow, ¥800; B-2, Autumn Leaves (oak) yellow, ¥800; B-3, Autumn Leaves (brush) yellow, ¥800; B-4, Autumn Leaves (maple) brown, ¥800; B-5, Autumn Leaves (oak) brown, ¥800; B-6, Autumn Leaves (brush) brown, ¥800 and N-2, Palm Trees Kit, ¥1000. To get more information on this botanical bonanza, go to [www.kamizukuri.jp](http://www.kamizukuri.jp) or [www.tasca-modelismo.com](http://www.tasca-modelismo.com)



## Legend from Korea

Legend from Korea has really been mixing it up lately. The list includes some nice stowage sets, modifications and a new full kit: 1171, M10 Stowage set (Small) (Academy/AFV Club), \$23.99; 1172, M10 Stowage set (Large) (Academy/AFV Club), \$39.99; 1173, PzKpfw II Stowage set, \$16.99; 1174, IDF MBT Merkava Mk 3D LIC (full kit), \$224.99; 1175, Bradley

ERA & M2A3 (Conversion set), \$72.99; 1176, M4A1 Sherman (Stowage set), \$39.99 and 1177, M1A2(A1) Abrams TUSK (Conversion set), \$48.99. Like we said, it's a pretty good mix with something for every member of the family. The U.S. importer for Legend is Squadron ([www.squadron.com](http://www.squadron.com)), and you can also find their full catalogue at the company site, [www.legendo.co.kr](http://www.legendo.co.kr)



97, PT-76/GS2P-55/BTR-50/BTR-50 PU, €27.00. These sets are really the nicest option for anyone completing a subject with all metal tracks.

When it comes to constructing miniature Panzers here at the Ampersand offices, they are always our first choice. Friul tracks can be found at many hobby dealers that have an extensive catalog, but we like to go right to the source. To see it for yourself, type [www.friulmodel.hu](http://www.friulmodel.hu) into your browser and see what comes up.



## LionMarc

LionMarc has been pretty quiet lately, but we all know that sometimes excellence takes time. Their accessories are a lot like fine wine in that respect—only you're not supposed to put them in your mouth. It says so right on the packaging. They did sneak out two new antenna



kits that are worth knowing about: 60009, WW2 British Antenna with Base, \$8.20 and 60010, 8ft Antenna for WW2 British Vehicles (3 pieces), \$9.50. The nicest thing about

the LionMarc website ([www.lionmarc.com](http://www.lionmarc.com)) is that you can get a good profile on their products and buy them right there. They also carry other lines that can be a bit hard to find, such as Passion Models, Decal Star and Pak Decals.

## Master Box

The news from the Master Box camp seems to come in big waves. Recently they put out a very ambitious list of figure releases: 3551, Maquis, French Resistance, \$11.95; 3548, Krad-schützen: German Motorcycle Troops on the Move, TBA; 3558, "Road to the Rear": Retreating German Troops with Cart, TBA; 3559, German Artillery Crew, TBA; 3560, German Motorcycle Repair Crew, TBA; 3563, "Counterattack" Soviet Infantry 1941, TBA; 35552, "Ticket Home" German Soldiers 1943-43. (Three wounded soldiers), TBA and 35553, "Supplies at Last" German Soldiers (Resupplying 1944-45), TBA.

We have also heard that some of their long-announced vehicle kits like the Kfz 170 and Panhard series should be hitting the shelves later this year. Stop by the Master Box home page at <http://www.mbltd.info> to see their new dioramas section, which contains a gallery of their completed sets done by modelers from around the world. Master Box kits seem to be popping up at hobby shops everywhere, so you should have no trouble finding their offerings when they are released.



## Gasoline

The Frenchies over at Gasoline never fail to impress. They have really made a niche for themselves with unparalleled 1:48 scale resin vehicle and

figure sets. They have been quite productive lately: 50165, French PVP Panhard, €23.48; 50188, German armored truck Mercedes-Benz 4500 37mm Flak 37, €39.73; 50189, German self-propelled

## Mig Productions

Mig is a perennial favorite with us here at MMiR. After all, they do so many things so well. From figures to resin modifications to pigments to instructional videos, these guys have it all. The update this time around for figures and accessories looks like this: MPE35-501, Arab License Plates; MPE35-507, Uparmored E-25; MP35-207, New Technical BJ44 Land Cruiser w/ photo-etch and Dushka; MP35-208, New Technical BJ45 Land Cruiser w/ photo-etch and B11 recoilless; MP35-209, New Technical BJ45 Land Cruiser Hard Top w/ photo-etch and tarp; 35-179, Instructing Iraqi Commander; 48-192, German Officer in Motorcyclist Overcoat; 48-193, Panzer Commander and MP48194, Studebaker/GMC Canvas Tarp (for Tamiya Kit).



Green; P245, Brown for Dark Green; P246, Gray for Bright Green; P400, Gray for Dark Yellow; P401, Ochre for Gray Sand; P402, Brown for Desert Yellow; P404, Gray for Bright White; P405, Brown for White-Green Camo and P406, Brown for White-Yellow Camo.

That's just the military pigment line. They have also put out a line of all-new Fantasy Pigments: F600, Rocket Exhaust; F601, Martian Dust; F602, Lunar Dust; F603, Volcanic Ash; F604, Zombie Green; F605, Graveyard Dirt; F606, Plasma Burn and F607, Metallic Silver. The fantasy pigments are also available in packs: F608, Fantasy set Vol. 1 (F600, F-601, F-602, F-603) and F609, Fantasy set Vol. 2 (F-604, F-605, F-606, F-607).

There's also activity in their growing line of dry transfers. First in 1:35th scale: MW7211, Wehrmacht Armour Markings (yellow) and MW7212, Soviet/Russian Armour Markings Post-1945. And in 1:72 scale:



MW3238, Wehrmacht Armour Numbers (yellow) and MW3239, Wehrmacht Unit Emblems 1939-45 (yellow).

Mig's website, [www.migproductions.com](http://www.migproductions.com), will give you the complete rundown on all of their products.



The big Mig news is really all in the pigment line. Please fasten your safety belts before attempting to read the following: P414, Track Brown; P413, Primer Red; P409, Wet Effects and Damp Earth Mixture; P410, Oil and Grease Stain Mixture; P240, Blue Filter For Panzer Gray; P241, Brown Filter For Panzer Yellow; P242, Tan Filter For Tritonal Camo; P244, Green for Light



Sturer Emil 128mm, €39.73; 50194, French light tractor Latil M7 T1, €24.38; 50381, British Jeep SAS crew Afrika, €6.69; 50382, German crew for 75mm PaK 40, €10.03; 50383, Marder III crew in action Russia, €6.69; 50384, German crew in supply DAK, €10.03; 50385, German panzer crew DAK/Italia - Sicilia, €10.03 and 50386, U.S. tank crew ETO, €12.04.

You can spend quite some time browsing their website, [www.quarter-kit.com](http://www.quarter-kit.com), because it is so extensive. The quarter kit shop also carries other 1:48 scale lines like Black Dog. You can also get Gasoline in the U.S. at Great Models ([www.greatmodels.com](http://www.greatmodels.com)).

### Helo Miniatures

We featured some of the offerings from Anders Heintz at Helo Miniatures back in the MMiR 45 Mini-Men column. We are pleased to announce that there are more figgies from this guy on the way: 35014, U.S. Lieutenant ETO 1944-1945; 35015, U.S. Infantryman 1944-1945 and 35016, U.S. Medic and Lieutenant ETO 1944-1945. To take a look at what

is going on with Helo, pay them a virtual visit at [www.helominiatures.com](http://www.helominiatures.com)

### Hobby Fan

Hobby Fan has chosen to grace us with three new figure sets that complement the kits of their brother company, AFV Club: 587, British Churchill Tank Crew (III) Alamein, \$26.50; 589, 1:35 U.S. Stryker Brigade OIF ACU Crew, \$15.50 and 590, British infantry riding with Churchill Tank (4 figures), \$50.00. Like AFV Club, the straight talk on their whole list of products is at the home page of their U.S. importer, Merit International ([www.merit-intl.com](http://www.merit-intl.com))

### Imperium

Ach! More figures from Russia! Someone on our staff was perusing a figure forum on the web and dug up news from a company called Imperium. These guys have a line of figures that features a variety of eras and scales, so you might want to check them out. The last update we saw had three new offerings:

3517, The Russian Tankman; 3518, Politruk and 3519, Percy Boy. Reading Cyrillic can be a bit taxing, so feed the web address into your Google search engine. It should give you an option on the search results that says, "translate this page." Oh yeah, the web address is <http://imperium.tank-hobby.ru/>

### Isradecal

If you couldn't guess from the name, Isradecal has a line of decals with primarily an Israeli theme. Most of their line deals with aircraft subjects, but we did spot two really snazzy sheets of markings for Israeli armor: IDF-01, Merkava Mk 1/2 Tactical Markings, \$27.00 and IDF-02, Merkava Mk 3/4 Tactical Markings, \$27.00. To take a closer look at these products or to order, look them up at [www.isradecal.com](http://www.isradecal.com)

### Italeri

When the boys over at Italeri aren't turning out gargantuan 1:35 scale boat kits, they sometimes give us something with wheels and tracks on it. There are three brand-new releases out from them right now, two of which have been previously announced: 6465, Crusader AA, \$59.00; 6467, Kfz 305 Tankwagen,

### MiniArt

Talk about a freakin' powerhouse! MiniArt seems to be leading the pack of the styrene figure manufacturers coming out of Russia and the Ukraine. As you probably know by now, they also put out plastic diorama buildings and accessories. Some of the building kits sold by Dragon USA also come with a Dragon figure set, making it kind of a complete diorama in a box. The new release list is as follows: 35049, Soviet Jeep Crew, \$14.95; 35062, German Soldiers at Rest, \$15.95; 35521, Village Workshop, \$23.95; 35524, Normandy Village House, \$27.95; 35526, Ruined House, \$32.95;

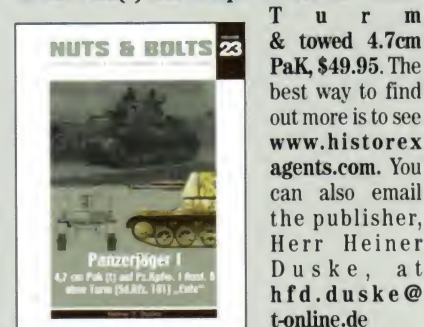


36017, European Farmyard, \$33.95; 36018, Farmhouse w/ Diorama Base, \$51.95; 36019, Normandy Cross-Roads Diorama, \$47.95; 36020, Village House w/ Ruined House, TBA; 36021, Diorama w/ Normandy House, TBA and 72016, 1:72 East European Village House, \$11.95.

Now available is a subject that is sure to excite: 35077, Dingo Mk III British Scout Car w/ crew, TBA. The MiniArt website is at [www.miniart-models.com](http://www.miniart-models.com) and their U.S. distributor is Dragon USA ([www.dragonmodelsusa.com](http://www.dragonmodelsusa.com)).

### Nuts & Bolts

Nut & Bolts gets to down the nitty-gritty of every subject they cover. It's definitely a one-stop reference approach. These books cover all aspects of the subject, giving a technical description, production and allocation information, service history and lots of graphics and photos. To top it all off, they usually give a run-down on the available models of the subject. Their latest edition is: Vol. 23, Panzerjäger I 4.7cm PaK(t) auf PzKpfw I Ausf. B ohne



T u r m & towed 4.7cm PaK, \$49.95. The best way to find out more is to see [www.historexagents.com](http://www.historexagents.com). You can also email the publisher, Herr Heiner Duske, at [hfd.duske@t-online.de](mailto:hfd.duske@t-online.de)

### NeoGrade

Last issue we gave you an avalanche of great resin from these guys. The conversion and stowage sets in 1:35 scale looked really tasty, so we've been keeping an eye on them. We have indeed seen some new stuff, and once again we are duly impressed.



There are two new stowage sets: TA-0012, Panzerkampfwagen III Ausf. L, \$30.00 and TA-0013, Panzerkampfwagen IV, \$30.00. The real action this time around was this list of conversions, which will definitely tickle the fancy of those looking for an unusual subject: TC-

0005, VK 4501(P) Tiger Prototype (Dragon Conversion), \$22.00; TC-0006, PzKpfw VI Tiger Ausf. H2, \$20.00; TO-0012, Panther Dozer (Dragon), \$20.00; TO-0014, T-34/76 41/42 (STZ), \$30.00 and NO-0013, Panzerkampfwagen VI Ausf. H1 - Fgst. Nr. V1, \$25.00.

NeoGrade is also punching out some mini-men: FG-0001, German DAK Panzer officer, \$12.00 and FG-0002, WWII U.S. Sherman Tank Crew, \$12.00.

There is one new full kit in 1:35 scale: FK-0004, T-34/85 tochka, \$25.00. This is a turret bunker with a T34/85 turret on it. Speaking of full



kits, we also spotted three megalithic offerings in 1:15 scale: FK-0001, 1:15 SdKfz 184 Elefant, \$800.00; FK-0002, 1:15 Pz I Ausf. F, \$500.00 and FK-0003, 1:15 Panzer IV Lang, \$800.00.

Check out NeoGrade at [www.neograde.net](http://www.neograde.net). Their products are also available through Sprue Brothers, HobbyLink Japan, Yellow Submarine and Lucky Model.





## Orange Hobby

Orange Hobby is a bit of a mystery. They just kinda came out of nowhere. The Orange Hobby web page at [www.orangehobby.com](http://www.orangehobby.com) will give you a rundown on their product range and is also the only place at present from which to order. This site



is yet another you might want to use that search engine translator for. There is a variety of turned brass and even some photo-etch here and it all looks very crunchalicious. Here's a look at the list so far: G35-001, German 2m Universal Antenna; G35-002, German 1.4m Command Antenna; G35-003, Universal Antenna for German Com-



bat Vehicle Early Version WWII (2M); G35-004, Universal Antenna Suite for German Combat Vehicle WWII (2M); G35-005, German M24



Stielhandgranate; G35-006, German Pz IV upper return roller A; G35-007, Barrel, Powder Charge Boxes & Shell Supports for the 150mm sIG 33/2; G35-008, Ammo Suite for 150mm sIG 33; G35-009, Basic Parts Upgrading Suite for the sIG 33 (38(t) M Chassis Only); G35-010, FuG Spr D Radio Suite for German Self-



propelled Artillery Vehicle WWII; G35-011, Churchill Mk III Basic Set (AFV Club); G35-012, Basic Parts Upgrading Suite for the Churchill Mk VII Infantry Tank (Tamiya); G35-013, British Tanks Aerial set A and G35-014, British Smoke Emitters Set A. Some of you may find this stuff too good to pass up. To find out more about ordering, shoot these fellas an email at [orange\\_hobby@hotmail.com](mailto:orange_hobby@hotmail.com)—but don't tell 'em we sent you, or they might raise the price!

## Panzer Shop

Modeling esoteric subjects in resin is the name of the game at Panzer Shop from the Czech Republic. This is one of those places expert modelers go to throw something out on the competition table that no one else will have. Their two latest additions are variants of a WWI armored car made by Peugeot: PS35C149, Peugeot w/ machine gun Hotchkiss (French WWI armored car),



\$125.00 and PS35C150, Peugeot w/ 37mm gun (French WWI armored car), \$125.00.

There was also a new release from Katana. Like Panzer Shop's own line, this stuff is pretty obscure, but it has a Japanese theme. Their new item is unique, to say the least: K35C09, Ho-Ri I (IJA WW2 heavy tank destroyer), \$175.00. The best place to browse and shop for these products is at [www.panzer-shop.cz](http://www.panzer-shop.cz)

## Panda Plastics

RHPS used to make the best Sherman tracks on the block, but unfortunately disappeared from the scene a few years ago. The great news is they are now back under the name of "Panda Plastics" and as well as re-releasing all the old favorites, they have an all new set of worn T48 rubber chevron tracks suitable for any M4 or Sherman based vehicle.



The tracks are nicely molded and display realistic looking wear to the chevrons. Each bag contains two types of sprue, one for the track blocks and one for the end connectors. Both are intelligently engineered so that there are no ejector-pin marks on any of the track pieces, meaning you just have to assemble the tracks without wasting time filling and sanding.

For the full list of Panda Plastics tracks check out [www.shermantracks.com](http://www.shermantracks.com)

## Perfect Scale Modellbau

The boys over at Perfect Scale have been going absolutely Bundesnuts lately. This is entirely appropriate since they are a German company. We've been blowing the trumpet for years about these guys; don't expect that to change. Keep an eye out for Perfect Scale here at MMiR. We have several projects involving their products in the works.



Well, enough talk. On to the goodie list: PE001, Jagdpanzer Kanone photo-etch parts and tools, €16.85; 35013, Leopard 2 Multi Charge Launcher 6/2, €9.90; 35030, Jagdpanzer Kanone roadwheels with detailing on the inside, €11.99; 35031, YPR 765 rear door, €6.95; 35032, 2 x set MG3, €6.50; 35033, 2 x "Bundeswehr" flashing beacon, €5.00; 35034, Marder 1A5 single link tracks, €21.95; 35035, Marder 1A5 conversion (Revell), €14.95; 35036, Leopard 1 roadwheels and idlers, €16.95 and 35037, Leopard 1 single link tracks, €16.50. It's great to see the Revell Germany kits getting some love. To soak up all the glory of this great little resin company, go to [www.perfect-scale.com](http://www.perfect-scale.com) and see for yourself today.



## Pro Art Models

Our Belgian friends over at Pro Art Models were laying low for a while, but they are now back with a vengeance. If you are doing a Humvee or any other current U.S. subject, you definitely want to stop by their site at [www.proartmodels.be](http://www.proartmodels.be) and scout for that special item or items that will set your model apart from the pack. Like many of the European companies that are turning out little gems in resin, ordering direct may be the most efficient option.



New additions for Pro Art include: 35008, Equipment set for Strykers, €11.50; 35009, AIRCO system for all U.S. vehicles, €20.00; 35028, HMMWV Armored Demountable Kit (HARD), including AIRCO (4-doors), €33.00 and 35029, Armor Survivability Kit (ASK) for HMMWV, including AIRCO (2-doors), €24.00.

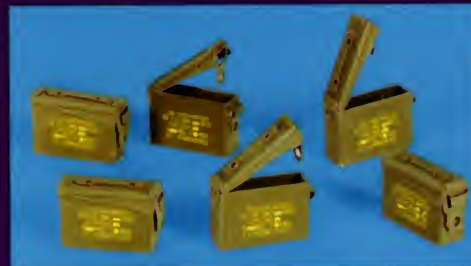
TBA and 6469, Carro Armato L6/40, \$59.00.

The provisional 2009 release list looks pretty good: 6475, 508C 1100 "Coloniale;" 6476, Carro Armato P 40; 6477, Semovente L 40 da 47/32; 6478, Staghound Mk IV; 6479, LCVF with 1/4-ton utility truck; 6480, sWS with FlaK 43; 6481, Leopard I A2A2; 6482, Autoblinda AB 40; 6483, M4A2 76mm "Wet" Sherman; 6601, SdKfz 234/2; 6602, 8.8cm FlaK 37 AA Gun and 6603, Autoblinda AB 43. Some of these look to be re-releases of subjects that have been out of production for a little while, which is always nice to see. There are two ways to keep up with Italeri: either at their home page ([www.italeri.com](http://www.italeri.com)) or at Model Rectifier Corporation ([www.modelrectifier.com](http://www.modelrectifier.com)), their importer to the U.S.

## Plus Model

Since we are obsessed with resin accessories, it is entirely appropriate that we move our discussion along to the Czech company, Plus Model. A nice little list of bits and pieces was added to their lineup lately: 317, U.S. Ammunition Boxes 7.62mm, \$8.30; 318, U.S. Ammunition Boxes 5.56mm, \$8.30; 319, Disabled man and granny, \$12.30; 322, Piano, \$13.10 and 323, U.S. Infantrymen with mule, \$23.10.

They have also turned out another good-looking soft skin full kit, but this time it's in 1:48 scale: 4040, Tatra 57K, \$44.30.



## Master Club

Master Club is yet another line of figures from Russia that we stumbled upon recently. We gave you a taste of what they offer back in MMR 45. The word on the street is that they have added a nice mix of WW1 and modern figures to their already very tasty selection: MCF35101R, WWI German infantryman, €8.15; MCF35102R, WWI German soldiers (grenadiers), €15.90; MCF35103R, WWI German soldiers (machine gun crew), €8.15; MCF35104R, WWI German soldiers (2 figures), €15.90; MCF35105R, WWI German soldier, €8.15; MCF35107, The Austro-Hungarian soldier WWI, TBA; MCF35108, The Russian soldier WWI, TBA; MCF35109, The Russian officer WWI, TBA; MCF35110, The Mujaheddins with AK-47 and British Lee-Enfield rifle, Afghanistan, TBA; MCF35111, Russian soldier with AGS-17 Plamya automatic grenade launcher, Afghanistan, TBA; MCF35113, Russian soldiers with Maxim machine gun WWI, TBA; MCA35301R, WWI Mauser Gew 98 German rifle 6 pcs., €3.98; MCA35302R, WWI German machine gun MG 08/15, €3.98 and MCA35304R, WWI M16 German Steel helmet 7 pcs., €3.98.

Like some of the other great products that we are seeing from Russia and Eastern Europe, Master Club can be a little hard to track down. We did find one place in the U.S. that carries these figures. It's called Historica Books and you can look them up at [www.historicabooks.com](http://www.historicabooks.com). There is also a source in Russia that seems to have a pretty good bead on all things Master Club. Bastion Miniatures has a web shop at [www.bastion-min.ru](http://www.bastion-min.ru) with a complete listing of the line.

## MK35

MK35 releases seem to come out in a slow but steady trickle. We have three new items from them this time. B019, Atlantic Wall Bunker Tobruk, €26.00 is the latest addition to their diorama accessories lineup. They have a new four-legged figure: F188, Dead Cow Normandy 1944 or France 1940, €11.00. Speaking of animals, they model some pretty good live ones, too. Finally, one new SS dude: F199, SS Pz Grenadier Ardennes 1944-45, €10.50. MK35 is a great place to look for that truly original diorama accessory or figure, so check 'em out at [www.mk35.com](http://www.mk35.com)

## Mec Models

Mec Models continues to concentrate on the Vietnam theme to good effect: RA-VF01, 2 Vietcong resin figures, €10.95; PA-CS02, Commercial signs no. 2, €3.95; PA-VS01, Various soda boxes no. 1, €1.95 and PA-VS02, Various soda boxes no. 2, €1.95.

We recently stopped by the company website, [www.mecmodels.com](http://www.mecmodels.com) and saw that they have some decal sheets in the works. Here is the projected list: Decals Guntruck no. 01, €4.20; Decals Guntruck no. 02, €4.20; Decals M113 APC no. 02, €7.95 and Decals various vehicles no. 1, TBA.

## Modelkasten

Modelkasten has long been known for their extremely well detailed and complex track sets. They also make some very nice detail sets, mainly for German WW2 subjects. Lately, things from Modelkasten have been pretty quiet but we did catch wind of this new detailing set: A-10, Panzer II Ausf. A, B & C Sprocket and Idler set.

Their homepage, [www.modelkasten.com](http://www.modelkasten.com) is entirely in Japanese, so you may want to use the aforementioned Google translate feature. Modelkasten has long been available in the U.S. from RZM Imports at [www.rzm.com](http://www.rzm.com)

## Mushroom Model Publications

The last time we covered anything from Mushroom was back in 42/43. Like we said before, they mainly do winged subjects, but we did see one new announcement from them for fans of the vaunted T-34: 4105, T-34/76 Camouflage & Markings (ISBN 978-83-89450-63-0), \$15.99. This 80-page book describes the colors and markings applied to the T-34/76, including unit and tactical markings, individual names and air recognition insignia through photos and color plates. Check it out at [www.mmpbooks.biz](http://www.mmpbooks.biz)

## Nordland

We used to list Nordland under Bubi Decals, but they offer more than just that line. They have re-mastered some items from the BliCZ line and re-packaged them under the name Germania: 35020, Rear armor for Pz IV H early and middle chassis with early base for idler wheels (Tamiya), €4.96; 35044, Rear armor for Pz IV J chassis with middle base for idler wheels (Tamiya), €4.96; 35046,



Hold the phone! We also picked this up on a last-minute information sweep: 321, British artillery tractor CDSW 30-CWT, \$167.80.

This is a 1:35 scale full kit. To look at the whole story, go to in [www.plusmodel.cz](http://www.plusmodel.cz)



Roof for Jagdpanzer IV L/70 early and middle with details (Dragon), €4.13 and 35047, Roof for Jagdpanzer IV L/70 late with details (Dragon), €4.13.

There are also some new sheets from Bubi Decals available: 55008, DAK Afrika Palm symbols - White, €2.92; 55009, Grossdeutschland insignia, TBA; 55010, Regiment "General Göring" markings, TBA; 55014, DAK Palm symbols - Black, €2.92; and 55011L, Waffen SS at Kharkov - Half-tracks from Waffen SS (markings for 10 vehicles), €15.00. Paying a visit to [www.nordlandmodels.com](http://www.nordlandmodels.com) will fill you in on what they have to offer. So go do it already!

### Platoon

Around once a quarter the white metal figure masters Pegaso Models deign to release a new offering in their 1:35 resin figure sub-line, Platoon. We like to stick these guys in Mini-Men when we can because they are really well done. There are two new figures since the last time we reported on them: PT-043, Wehrmacht soldier, €11.67 and PT-044, German Tanker, €11.67. The world of Platoon and Pegaso can be seen at [www.pegasomodels.com](http://www.pegasomodels.com), and these items can be found at good figure and hobby shops everywhere.

### Reality in Scale

Reality in Scale has really been pounding out the 1:35 scale diorama accessories lately. This is a young

### Resicast

Resicast is near and dear to us here at MMiR. At time of writing, Jeff is still locked in the bathroom with a the Rolls Royce armored car that we told you about last time. A great deal of incoherent muttering and quiet weeping can be heard from behind that door.

Time marches on, though. These guys never sit still. The latest concentration

seems to be on mods to construct some of the many "funnies" that the Churchill Tank was famous for. These are based on the AFV Club Churchill: 35.1202, AVRE Mk IV turret & fittings, TBA includes a new one-piece turret and a basic interior along with the other fitting needed for an AVRE conversion. 35.1204, Churchill ARK Mk I, €59.50 is an armored ramp carrier that was used for crossing anti-tank ditches. The kit allows you to make either the early version with short rear ramp or the late version with long ramps.

There are two less radical but equally cool accessory kits available too: 35.2308, Engine for Churchill, €19.50 and 35.2311, Early pattern



tracks for AFV Club Churchill, TBA.

To round things out, there are a couple more little items for you anglophiles out there: 35.2313, Besa ammo boxes, €10.00; 35.2315, Various damaged ammo boxes & biscuit tins, €15.00; 35.5598, "Brew Up" 3 figure vignette of UK tankers eating, TBA and 35.5599, Universal Carrier driver, €11.00. This last figure is designed for their Universal Carrier full kits. The world of Resicast in on the web at [www.resicast.com](http://www.resicast.com), of all places, where they eagerly await your visit.

### Royal

Royal Models isn't one of those companies that offers a little bit of everything. No, ladies, they offer a LOT of everything. They have accessory sets and conversions for vehicles, figures and diorama accessories.

For instance, 498, SdKfz 250/251 Tool & Holder Set, €14.00 is a nice little accessory set for the Hanomag from several different manufacturers. Given the quality of what's already in the box, this accessory set may be all the help the latest 250 and 251 kits from Dragon



and AFV Club really need.

The big news, though, is their PT boat items. Wow! Now, these are worth taking a look at. There is a host of new products here to make a complete dockside diorama for the Italeri



kit: 529, U.S. Generator (WWII), €22.00; 531, Wooden boat jetty Pacific (WWII), €26.00; 532, Mobile Crane, €32.00; 535, Elco 80' and Harbor Accessories, €28.00; 536, U.S. Sailor and Navy Officer, €24.00; 537, U.S. Sailor who is washing, €12.00; 560, Bofors,

€18.00 and 561, Elco 80' Torpedo Boat PT-596, €68.00. This last item is composed of six photo-etch sheets and a bevy of resin pieces to step up the detail on the model itself.

In the past, Royal has been a little hard to get on this side of the Atlantic except by ordering direct from their website ([www.royalmodel.com](http://www.royalmodel.com)), but they are now distributed worldwide by none other than HobbyLink Japan ([www.hlj.com](http://www.hlj.com)).

company, but the stock list from them is already pretty long. We obtained some samples of this stuff from the owner and are happy to report that the quality is top notch. Ready for the list? Okay, here goes: 35061, French Flags WWII on Real Cotton, €6.75; 35062, Table Cloths on Real Cotton, €4.75; 35063, Historical & Common Stained Glass Windows, €7.50; 35064, Religious Stained Glass Windows, €7.50; 35065, German Aerial Propaganda Leaflets, €5.75; 35066, Road Barrier, €9.75; 35067, British Aerial Propaganda Leaflets, €5.75; 35068, Stair Carpets on Real Cloth, €6.50; 35069,

Small Carpets on Real Cloth, €4.75; 35070, Chapel Section, €16.75; 35071, "Caryatide" Ruined Theatre, €29.75; 35072, Rural Information Sign, €8.50; 35073, Wall Fountain, €12.50; 35074, "Villa Palladio," €39.00 and 35075, Pin-up Girls WWII Era, €3.75. As far as we can tell, the best place to look and buy is still at the company website, [www.realityinscale.com](http://www.realityinscale.com)

### R&J Products

Rich and Joy Sullivan have been importing hard to find lines like Alarmil, Blast, Blues Models, K59 and Masters Productions, among many others, since

1988. You can find an ad with their contact information in almost any issue of MMiR, including this one. In addition, they have put out some nice little accessory sets of their own: 35205, WWII Italian Jerry-cans, \$12.00; 35218B, Breech and Breech Block for sFH18 Howitzer, \$7.00; 335218LC, sFH 18 Limber Wheels, \$6.00; 35218SHC, sFH 18 Howitzer Wheels Cross-hatch pattern, \$9.00 and 35218HP, sFH 18 Howitzer Wheels Parallel line pattern, \$9.00. To find out more, stop by their website at [www.rjproducts.com](http://www.rjproducts.com)



## Taisho Modeling

There is a Japanese web shop called Miniature Park ([www.miniature-park.com/index\\_e.php](http://www.miniature-park.com/index_e.php)) that has long been a dirty little secret among the editorial staff here at Ampersand. This is a good source to pick up those sometimes hard to find Japanese figure lines like Taisho and Yosoi, among others. Our most recent discoveries from Taisho are



RM35010, Japanese Army Tank crew at rest No. 1 (2 figures), \$46.00 and RM35011, Japanese Army Tank crew at rest No. 2 (2 figures), \$46.00. These are especially yummy because the subject matter has been so thoroughly overlooked lately by other manufacturers. Stop by Miniature Park yourself when you get a chance. We guarantee you'll see something good.

## Tasca

Tasca has churned out two very interesting items this time around: 35-017, British Army Sherman 3 Direct Vision Type (w/ Early "VVSS" Suspension) and 35-L28, British Army Sherman 3 Direct Vision Type (w/ Initial "VVSS" Suspension).



They seem to be having a lot of success with their excellent Sherman kits. If you haven't snapped up a Tasca

Sherman yet, we suggest you do so!

The Tasca website ([www.tasca-modelismo.com](http://www.tasca-modelismo.com)) contains a complete profile on all of their products as well as some of the other specialized Japanese lines like Shinsegumi and Kamizukuri that we mentioned earlier.

## Tamiya

We have only a few new releases to report this time, but some of them are pretty darn significant. Here's the list in 1:35 scale: 35298, German Open Battle Observation Group; 35300, British Matilda Mk III/IV; 35301, Citroën 11CV Staff Car and 35302, German 3.7cm AA Gun Type 37 w/ Crew Set. Numerically different but also 1:35



scale is 89785, British L.R.D.G. Command Car and BREDA 20mm AA Gun. This is a re-boxing of the Italeri gun with the older Tamiya kit.

In really BIG news (get it? BIG?), there are two new 1:16 scale kits surging down the pipeline: 56027, Russian Tank KV-1 Full Operation RC



Kit and 56027, Russian Tank KV-II Full Operation RC Kit.

You can find Tamiya everywhere. To get the scoop on the Big T, tune into [www.tamiya.com](http://www.tamiya.com)



## Tank Workshop

Tank Workshop has been going like gangbusters lately. There are a variety of new accessories out as well as a nice grouping of new full kits.

Check these out: 0034A, USMC Wading Stacks (Field Mod), \$17.25; 0099, CAT D7 Military/Civilian Bulldozer (Full Kit), \$75.00; 1006, Set of 9 heavy cargo crates, TBA; 1081, Karl Gerät 60cm shell, \$3.50; 1082, K5/Leopold shell, \$2.50; STZ 038 D-30 Muzzle Brake, TBA and CIRD (Canadian Indestructible Roller) conversion for the Churchill tank, TBA.

The really cool news is their renewed interest in German railcars, which are an excellent ingredient for a primo Panzer display: 3003, Leichter



Flächen wagen 50-ton (Light Flat car), \$75.00; 3005, Leichter Feldbahnwagen (Light Gondola), \$90.00 and 3006, Schwerer Feldbahnwagen (Heavy Gondola), \$80.00. To see all the great stuff going on at Tank Workshop, go by [www.tankworkshop.com](http://www.tankworkshop.com) and take a look around.

## Tiger Models

Tiger Models has recently released a very ambitious conversion kit that has drawn a lot of attention: 16140, Early A Bergepanther



Conversion (Dragon), \$150.00. This is an exceptional super-detailing project that is not for the faint of heart. There are rumors that several people have gone blind by just looking at the promotional photos, so we recommend that you take the same precautions that are necessary for viewing a solar eclipse before going to [www.tigermodels.com](http://www.tigermodels.com) to see for yourself.

There are also some newly available resin accessories: 10060, German AFV-Mounted MG Bags (All), \$5.00; 16130, Panther Transmission (Early), \$18.50 and 16131, Panther Transmission (Late), \$18.50.

We foresee feature articles with Tiger Models products coming to a future near you.



## Trumpeter

It's pretty amazing how far Trumpeter has come in the last few years. The days of their kits being derided for the weird plastic that no one could glue together or get paint to adhere to are like a distant dream. Since then we've seen them go for big kits in a big way, from 1:16 scale AFVs to 1:35 scale locomotives. Along the way they have built up a very respectable roster of plain old 1:35 scale military miniatures too. But enough history, let's go ahead and look at some news.

That huge King Tiger kit is now available as the Porsche Turret version: 907, German SdKfz 182 King Tiger w/ Porsche Turret, \$599.95. The new 1:35 scale list looks something like this: 217, German BF86 Steam Locomotive, TBA; 219, German Panzerlokomotive BR57 Armored Locomotive, TBA; 389, Bergepanzer IV, TBA; 392, Australian ASLAV-25

early version) with SdAnhang 51, TBA; 2306, M198 155mm Medium Towed Howitzer (Early Version), \$44.95 and 2313, 17cm K-18 Heavy artillery, TBA.

There are also some kits coming down the pike that we don't have any stock numbers for yet: Armored Train BP-42 Armored Train BP-42 and Gepanzerte SdKfz. 7 Late Version.

Trumpeter has a long list of 1:72 scale

## M198 155mm Medium Towed Howitzer (Early Version)



## German 2cm Flakvierling 38 Auf Selbstfahrlafette (Sd.Kfz. 7/1 early version) With Sd.Anhänger 51



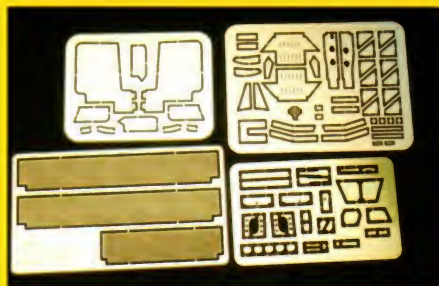
military vehicles that keeps getting even longer. Some of the new ones include: 7263, B1 BIS 1940, \$19.95; 7281, T-54B 1955, \$19.95 and 7282, T-55 1958, \$19.95.

Last but not least, they are putting out a line of display cases in various measurements to protect your project from the ravages of time: 9814, Plastic transparent case 325 x 165

will be more of these in different sizes available soon. The Trumpeter website is a [www.trumpeter-hina.com](http://www.trumpeter-hina.com) if you desire more information on their entire line.



(Reconnaissance), \$44.95; 399, M1134 Stryker Anti-Tank Guided Missile, \$49.95; 1520, Flakpanzer IV Ostwind, TBA; 1523, German 2cm Flakvierling 38 auf Selbstfahrlafette (SdKfz 7/1



x 125mm; 9815, Plastic transparent case 364 x 186 x 121mm; 9816, Plastic transparent case 170 x 75 x 67mm and 9817, Plastic transparent case 210 x 100 x 80mm. We are pretty sure there



## Shinsegumi

If you don't feel like painting, how about covering your model's entire surface with a decal? Some people may find this a bit implausible, but the boys over at Shinsegumi have been making this a viable option for the last few years. We originally saw this in the Japanese magazine, Armour Modelling. Later on we stumbled over the line while scouting out Tasca's website ([www.tasca-modellismo.com](http://www.tasca-modellismo.com)), where we ran across the complete listing.

These new additions are all for figure uniforms in 1:35 scale. Some of them are real eye-catchers: 018, Modern U.S. Camouflage Schema digital Desert, ¥1100; 019, Modern U.S. Camouflage Schema digital Woodland, ¥1100; 020, Modern U.S. Camouflage Schema digital ACU, ¥1100; 021, Camouflage Pattern LW Splinter Pattern ver. A for Fallschirmjäger, ¥1200; 022, Camouflage Pattern LW Splinter Pattern ver. B for Fallschirmjäger, ¥1200; 023,

Camouflage Pattern LW Splinter Pattern ver. C for Fallschirmjäger, ¥1100; 024, Camouflage Pattern Leibermuster, ¥1200; 025, Camouflage Pattern SS Palm Tree for Spring, ¥1000 and 026, Camouflage Pattern SS Palm Tree for Autumn, ¥1000. You can shop for them at HobbyLink Japan ([www.hlj.com](http://www.hlj.com)) if you happen to be browsing around over there, too.

## SKP

SKP has been turning out a respectable line of detailing items and figures for a little while now. Just because their items are small in size doesn't mean they shouldn't be taken seriously. We have five new goodies from them this time: 039, Tow cables for ISU Tank Destroyer, €2.95; 048, British Military Policeman, €4.99; 054, Engine for SdKfz 251 (AFV Club), €2.95; 061, Tow cables for Hetzer, Marder, Grille, €2.95 and 062, Idler Wheels for Hetzer, €3.49. They have a complete listing of the whole shebang, along with ordering information, at [www.skpmodel.eu](http://www.skpmodel.eu)

## Ultracast

These guys pop up regularly in Mini-Men and we really dig the items they offer. There are two new additions from Ultracast for fans of British/Commonwealth stuff: 35051, Canadian/British Tank Crewman - All Theatres Summer 1939-45, \$17.95 and 135016, WW2 British Empire Steel Munition Boxes C.224 Mk I, \$5.95. The prices are in Canadian dollars. The best way we know to shop for Ultracast is through their own website at [www.ultracast.ca](http://www.ultracast.ca)

## Verlinden

Verlinden really is the granddaddy of all the after-market companies. Since the 1980's they have been covering all the angles with accessories, conversions and full kits from almost every genre in the modeling world. Their selection of plaster building kits and diorama accessories made life easier for everyone and almost cured world hunger.



## Vallejo

We've always been real fans of Vallejo paints, so much so that pretty much every model we work on uses their acrylics in some

form, be it from the Modelcolor, Modelair or the Panzer Aces range.

The latest sets to arrive include a set designed specifically for painting

and weathering winter white washed vehicles. In the box you get seven Modelcolor paints, a sepia wash, a sand textured paste and to this little lot Vallejo supplies two quality brushes and a piece of natural sponge. As an added bonus the back of the box offers a really useful 16 step painting guide to walk you through the techniques for the best

possible results.

With Vallejo producing such a comprehensive range of paints it seems only logical that they venture into other weathering mediums and this is exactly what they have done by announcing their own range of pigments. The set we received contains four colors for reproducing mud and sand: Light Yellow Ochre, Brown Iron Oxide, Natural Umber and Light Slate Gray. We're happy to report that the pigments have been ground to an ultra-fine powder that sticks well to the model's surface. We will be

sure to test these on forthcoming projects in MMiR.

This is the list by the numbers: 70179, Panzer Aces Camouflage colors; 73999,



Colors for Models & Miniatures Accessory; 72220, Winter Weathering Set; 72294, Game Color Extra Opaque Basecoat Color (great for undercoating) and 73197, Vallejo Pigments For Mud and Sand Set No. 2.

For more information on pricing and availability see [www.acrylicosvallejo.com](http://www.acrylicosvallejo.com)



## Voyager Model

The pace at which Voyager produces detail sets never seems to ease, as can be seen with the comprehensive and varied list of stuff we have received recently. It's great to see sets for Tamiya's new Jagdtiger and Dragon Model Brummbar, which even include turned brass gun cleaning-rods. Think about combining the basic set with the fender and Schürzen set for the ultimate Grizzly Bear!

Get on down with PEA 097, Bolts for Stryker; PEA 129, WWII German SdKfz 186 Panzerjäger



"Jagdtiger" Schürzen; PEA 135, WWII German Sturmpanzer IV Brummbar Early/Mid Version; PEA 35164, WWII Italian Medium tank M13/40; PEA 35165, WWII Italian Self-propelled gun M40; PEA 167, Modern

U.S. Army Stryker Woven Straps; PEA 169, Modern U.S. Army Stryker family antenna set; PE 35160, WWII German SdKfz 186 Panzerjäger "Jagdtiger" Basic; PE 35189, Modern U.S. M1128 MGS; PE 35212, Modern U.S. M1128 MGS Armour plate; PE 35239, WWII German SdKfz 250/8 "Stummel;" PE 35297, WWII German Sturmpanzer IV Brummbar Mid Version Basic and PE 35298, WWII German Sturmpanzer IV Brummbar Early/Mid Version Fenders.

Yep, they've got barrels and weapon-related goodies, too! VBS0124, WWII German StuG III Ausf. G Late Production 75mm Stuk40 L/48 w/ Saukopf Mantlet Pattern 1; VBS0127, WWII German StuG IV Ausf. G Late Production 75mm Stuk40 L/48 w/ Cast Mantlet; VBS0129, WWII

German Panzer IV Ausf. H/J L/48 75mm w/ Mantlet Pattern 1; VBS0132, WWII German StuG III Ausf. G Late Production 75mm Stuk40 L/48 Barrel late version w/ Welded Mantlet; VBS0133, WWII German Jagdpanzer IV 75mm L48 Barrel late w/ Saukopf Mantlet; VBS0205 Modern U.S. M1128 MGS Machine Gun & Gun Shield; VBS0309, WWII German 75mm KwK 37/Stuk 37 Ammunition and BS0310, WWII German 75mm KwK 37/Stuk 37 Ammunition Shell Cases.

For a full list of distributors, please check out [www.voyagermodel.com](http://www.voyagermodel.com)



For a while there, we didn't hear much from the Verlinden camp and it became really hard to bring you accurate updates. Things appear to have changed. We heard recently that Francois Verlinden himself has come out of retirement to retake the helm. They have a spiffy new website ([www.verlindenonline.com](http://www.verlindenonline.com)) that really deserves a visit, so stop on by.

Here is some of the stuff we spotted that should draw interest: 2468, Brick Road/Street Section, \$12.95; 2469, Stuck! Diorama Base, \$49.95; 2470, Sunken River Barge, \$39.95; 2471, U.S. Paras WWII at Battle, \$14.95; 2472, Soviet Tanker Captured, \$14.95 and VPLE-001, Stuck In the Swamp! Complete Diorama With Base, \$49.95. This last item is a limited edition diorama in a box that contains a base, a resin V-100 armored car, vegetation, a

figure and accessories. The first 25 contain a base signed by Mr. Verlinden.

## Young Miniatures

Last issue we gave you the latest word on this outstanding figure company. We only have one new announcement from them, but it sure is tasty: 1813, 1:10 Scale USMC Iwo Jima 1945. We did some shopping around on this line and found out some good news. The suggested retail prices seem a bit steep, usually in the \$80.00 range. However, some of our favorite figure vendors like The Red Lancers, Michigan Toy Soldier and Colorado Miniatures are offering the products for around \$50.00-\$60.00. That should take some of the sting out. If you want to see what this line is all about, surf on over to [www.young-miniatures.com](http://www.young-miniatures.com)

## Zvezda

We cannot disclose the full details of how this information was obtained. All we can say is that no animals were harmed during the writing of this paragraph. Zvezda has thrown out a nice list of future releases and you should keep your eyes peeled for them, since the quality just keeps getting better and better: 3555, BMP-2D; 3573, T-90 MBT; 3603, Maultier L4500R; 3607, German WWII Sidecar R12 with crew; 3608, KV-2; 3609, Soviet DSHK with Crew WWII; 3610, PaK 36 with crew; 3611, Soviet Tank Hunters with Dog and 3615, Russian Modern Tank Crew.

Zvezda is imported to the U.S. by Dragon USA ([www.dragonmodelsusa.com](http://www.dragonmodelsusa.com)), but they also have their own site at [www.zvezda.org.ru](http://www.zvezda.org.ru)



# Book Reviews

**White Thunder:**  
Centauro Inside Out  
By Moustafa El-Assad  
Blue-Steel Publications  
Soft Cover, 64 pages full color  
ISBN 978-9953-0-1255-1



WHITE THUNDER IS THE LATEST book we have received from Blue Steel. Its subject is the Centauro, an Italian eight-wheeled armored car. With a 105mm gun as its main armament, it's no wonder that this bad boy is officially classified as a Reconnaissance Anti-Tank vehicle. The Italian military currently uses 400 of these vehicles and Spain has an additional 84.

Blue Steel's book has extensive coverage of Italian Army Centauros in the service of

UNIFIL, the UN peacekeeping mission in Lebanon. The volume includes full color exterior walk-around shots of both the B-1 (short body) and B-1T (long body), along with some nice interior photos. The white UN paint scheme on some of these vehicles is definitely an eye catcher. In all, there are 120 full color pictures accompanied by short but informative captions. Anyone interested in the Model Victoria B-1 or the newer Trumpeter releases will want to pick up a copy. It is currently the most complete reference on the subject available anywhere.

**Armor Photogallery #20:**  
British Cruiser Tank A34 Comet  
By Dick Taylor and Chris Hughes  
Model Centrum Progres  
Soft Cover, 80 pages  
B&W with color  
ISBN 978-83-60672-07-5



THE BRITISH A34 COMET WAS the successor to the Cromwell series. The Comet mounted a 17 pdr gun, making it considerably more powerful than its predecessor. It saw limited service after December 1944 and served for a time alongside the famous Centurion series after WW2. The Bronco Comet kit has been with us for a little while now, so we're happy to finally see a quality reference title on the subject.

Model Centrum Progres stuffs a lot of info into this little volume. The first and most extensive section of the book is

a full color walk-around of a fully restored vehicle from the Jacques Littlefield collection, including both interior and exterior photos. The second section contains graphical information with 1:35 and 1:48 scale plan view drawings and diagrams from the technical manual. The last section is a collection of black and white photos accompanied by a concise deployment history. This offering is an excellent value and a great all-in-one reference on the Comet.

**The Belgian School**  
"Flemish Masters"  
Auriga Publishing International  
Soft Cover, 150 pages full color  
ISBN 88-88711-28-7

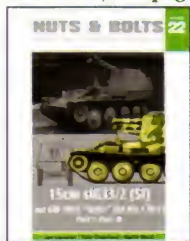


IN RECENT YEARS, BELGIAN modeling clubs have contributed a great deal to our little hobby. Anyone perusing an article on Euro Militaire is bound to run across plenty of work from these guys.

The Belgian School "Flemish Masters" follows in the footsteps of The Nordic Edge by showcasing the best work of gifted modelers. This book presents the crème de la crème from 18 modelers from the Belgian clubs, including our very own

Hugo Luyten. There is a full chapter devoted to each modeler, with a short biography and a profile of his best work. In all, this volume contains more than 110 models and over 240 photographs, so a detailed list of the contents would likely take up the rest of the magazine. Suffice it to say, there is a really nice cross-section of subject matter ranging from WW2 to modern and even some figures from Marijn Van Gils that that really defy categorization. Large, full color photos predominate here with lots of informative captions that allow the reader to soak in the expertise required to craft models of this caliber. If you're totally geeky (like us), you'll buy it and put it on the coffee table. If you're not, buy it anyway and hide it under your pillow.

**Nuts & Bolts Vol. 22: 15cm sIG 33/2 auf GW 38(t) "Grille" Sd.Kfz 138/1 Part 1: Ausf M**  
By Jari Leivonen, Tony Greenland and Martin Block  
Nuts & Bolts Verlag GBR  
Soft Cover, 120 pages B&W with color

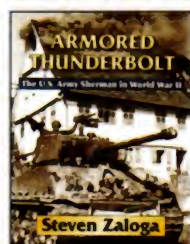


NUTS & BOLTS IS BACK AGAIN with another superior one-stop reference volume. This time they cover the Grille M, an open-topped self-propelled howitzer based on the versatile Czech 38(t) chassis. About 225 of these vehicles were produced beginning in December 1943, and they were generally issued to the grenadier regiments' Panzer and SS Panzer divisions.

Nuts & Bolts tells the whole story in this little book. It starts off with text on development, technical description, production,

unit-by-unit deployment breakdown, camouflage and markings. A nice section of period photos is followed by line drawings and color plates for the Grille M. There are line drawings for the Munitionspanzer variants included, too. A full color section with a walk-around of the example at Aberdeen will satisfy just about anyone with detailing questions. There is also a short write-up on Tony Greenland's models, which are pictured in full color on the inside cover pages. In fact, Mr. Greenland gets even more glory than usual here with some pages of detail shots of his awesome models thrown in for good measure. All of you who are diggin' the new Dragon Grille M Smart Kit and the Cyber Hobby Munitionspanzer will definitely want to check this one out.

**Armored Thunderbolt**  
By Steven Zaloga  
Stackpole Books  
Hard Cover, 360 pages B&W  
ISBN 978-0-8117-0424-3



THE FULL TITLE OF THIS NEW book by Steve Zaloga is actually *Armored Thunderbolt, The U.S. Army Sherman in World War II*. The second part of the title is actually a bit of an understatement, since there is much more to this book than just another technical reference on

different models of the U.S. M4 Medium tank. Mr. Zaloga tells the story of the Sherman in its historical context, so there are many other topics covered as well.

The first portion of *Armored Thunderbolt* actually starts with the birth of the U.S. armored forces in WW1 and traces their history through the development of the Sherman, giving the reader ample background. The second portion moves on to the Sherman's initial deployment in both American and British hands in North Africa, Sicily and Italy. The third and meatiest portion deals, of course, with the campaign in Northwest Europe, where the U.S. Armored forces saw the most action. In this portion, Mr. Zaloga examines not only the Sherman itself, but also opposing weaponry, tank destroyers and the Pershing. The book wraps things up with chapters on the role of U.S. armor in the Pacific, postwar use of the Sherman and some nice tables of technical data. In all, *Armored Thunderbolt* is a well-written, comprehensive story that is easy to read and sure to appeal to fans of WW2 armor.

**The Royal Hungarian Army in World War II**  
By Dr. Nigel Thomas and Lazlo Pal Szabo  
Osprey Publishing  
Soft Cover, 48 pages B&W with color  
ISBN 978-1-84603-324-7



AS YOU WELL KNOW, OSPREY Publishing pumps out a lot of books. The Royal Hungarian Army in World War II is particularly interesting because it surveys a topic that has not received much coverage in English. The first half of the 20th century was an unfortunate time for Hungary. With the breakup of the Austro-Hungarian Empire at the conclusion of WW1, the country was reduced from a



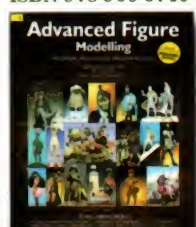


powerful nation to a weak rump state. Hitler found an ally in Hungary by supporting its expansionist ambitions.

As a member of the Axis, Hungary was able to regain much of its lost territory shortly before and during the early part of WW2. Hungary went on to provide Germany with more troops on the Eastern Front than any other Axis nation. The Hungarian Army saw lots of action in the Ukraine, Eastern Europe, and finally at Budapest, its own capital.

This is a big topic for such a small book, but the authors do a very good job at filling us in on this piece of WW2 history, taking us from the conclusion of WW1 all the way to the end of WW2. On top of that, the book details the organization of the armed forces throughout these years. As usual, seven pages of Osprey's wonderful color plates are included to illustrate uniforms and personal equipment. These complement the many black and white pictures of Hungarian Army uniforms. The combination of history, uniforms, and unit data all in one volume makes this a choice title to pick up for all WW2 history buffs.

### Advanced Figure Modeling Vol. 1 Periscopio Publications Soft Cover, 178 pages full color ISBN 978-960-6740-49-7

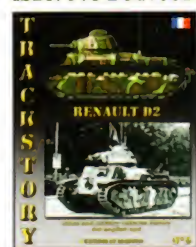


THIS TITLE IS OFF THE BEATEN PATH FOR OUR LITTLE magazine, but it's so exciting that we just can't contain ourselves. Periscopio Publications has pulled out all the stops with a showcase of world-class figures along a timeline stretching from

Ancient Greece to WW2. In all, there are 35 figure models featured in this book, so a complete list would be too long to include here. Each figure is accompanied by a complete article with an

exposition on the construction and finish of the subject. The format is full color and photo heavy. There are even some color plates with textual description thrown in for some of the Ancient Greek and Roman era warriors. The appeal of this book is definitely broad-based. It serves to entertain those who want to look at beautiful models, expands your horizons with its breadth of historical subject matter, and illuminates these master modelers' techniques. Anyone with the least bit of interest in model figures will definitely want to take a look.

### Trackstory No. 9: Renault D2 By Pascale Danjou Editions Du Barbotin Soft Cover, 62 pages B&W with color ISBN 978-2-917661-02-4



IN THIS NINTH EDITION OF ITS Trackstory series, Editions du Barbotin once again provides us with an in-depth look at a subject rarely covered in other reference books. The Renault D2 was the successor the Renault D1, featuring improved armor and better mobility. It

had the added advantage of weighing less than 25 tons, which meant that it could bypass the prohibitions set by the International Disarmament Conference and replace the Char B1 if necessary.

The eventual failure of the conference to approve this measure, however, resulted in a very short production run for the D2 in favor of the Char B1. Only about 100 D2s were ever produced, but it remains a compelling subject. Charles de Gaulle himself commanded a unit of D2s.

Like the other volumes in the Trackstory series, this book has parallel French and English text that covers in detail the deployment history of the vehicle. It has plenty of black and white detail photos that will prove invaluable to the modeler, and as an added bonus, it includes 12 pages of color plates illustrating the various markings and paint schemes.

Editions du Barbotin consistently publishes excellent reference material on otherwise neglected French armor subjects. This is a must-have for anyone interested in Azimut's resin kit.

### M42 Duster Walk Around By David Doyle Squadron/Signal Publications Soft Cover, 80 pages B&W with color ISBN 978-0-89747558-7



THE ONE AND ONLY David Doyle once again enriches our libraries and our

lives with this newest installment in Squadron/Signal's Walk Around series. The M42 Duster self-propelled anti-aircraft gun, an upgrade to the M19, was developed in the years immediately following WW2 and stayed in service until the late 1980's. Like its predecessor, the Duster was armed with a M2A1 40mm anti-aircraft cannon and a pintle-mounted .30 caliber machine gun. Interestingly, the M42 was mainly used against ground targets rather than aircraft, especially in Vietnam.

This slim volume contains a concise introduction, 70 pages of captioned, full color walk-around photographs, and 10 pages of drawings, charts and color plates. In typical David Doyle style, every last detail of the M42 is skillfully photographed and clearly explained. This book is required reading for anyone interested in improving the accuracy of Tamiya's old kit, which is currently the only Duster kit on the market—although we await AFV Club's long promised release with bated breath.

### Opel Blitz in Detail By Koran, Mostek and Vesely Wings & Wheels Publications Soft Cover, 105 pages full color ISBN 80-86416-51-8

THIS TITLE FROM WINGS & WHEELS HAS ACTUALLY BEEN OUT since 2007, but with the release of the Tamiya kit we are sure you want to know all there is to know about the Opel Blitz. WWP provides yet another bonanza of full color reference photos, using examples from



Czech and Belgian museums and private collections. Both the 4x4 and 4x2 versions are fully covered here, inside and out, including engine and suspension detail shots that provide enough information for the pickiest of detailers. The Opel Blitz cargo, fire engine, airport crash tender, house body, radio truck, and Luftwaffe radio van are all fully covered.

We think the choice to include the fire

engine variant is especially cool since Italeri makes a 1:24 scale version. The radio truck section is really juicy too, including details on the radio setup itself. On top of the older Verlinden conversions, CMK has recently decided to go to town on this topic, making a good reference



work very timely. Soft skin freaks and anyone looking to detail or convert their Opel Blitz model is definitely going to want this book.

### Tankograd American Special No.3: M1A1/M1A2 SEP Abrams TUSK By Carl Schulze Tankograd Publishing Soft Cover, 64 pages full color

WE RECENTLY RECEIVED AN EXCITING PACKAGE FROM OUR German pal Jochen Vollert at Tankograd Publishing, and we can't wait to spread the news. The M1A1/M1A2 SEP Abrams TUSK—Tank Urban Survivability Kit—is a timely and fascinating subject for all you modern armor aficionados out there. The TUSK program, initiated by the U.S. Army in 2004, aims to improve the lethality and survivability of main battle tanks engaged in urban warfare. The addition of reactive armor tiles, belly armor, a mine resistant driver's seat, improved crew communication devices, and remote thermal sights makes these tanks formidable opponents indeed. They are currently deployed in Iraq, where the widespread use of IEDs and volley-fired



RPGs makes the TUSK upgrade indispensable.

This book comprises two concise English/German textual sections: the

first covers the history of the Abrams and its variants and includes several pages of color photos, and the second covers the development of the TUSK program and details its various components. This second section also includes captioned photographs of the current Iraqi conflict. The text portion of the book is followed by sections of detailed walk-around photographs, one each for the M1A1HA TUSK I and the M1A2SEP TUSK II. Both of these sections include close-up detail shots of the tanks' various components. Highly informative and beautifully illustrated, this volume is not to be missed.



# THE DESERT COM

*The 1:35 Academy  
M3 Lee kit receives a  
serious upgrade from  
Legend Productions*



I have always been particularly interested in the North African campaign—the arid environment, the vast desert expanses and the notion of chivalry among enemies are all very compelling. There was also a wide variety of armored vehicles involved in this theater, which means there is no shortage of unique subjects for modelers.

If you've read the last two MMiR painting guides, you know that I recently completed a Panzer IV in DAK markings. I did extensive research for that project, which gave me a head start on this one: the Academy M3 Lee. Unlike their German contemporaries, the American tanks in North Africa did not

receive an overcoat of sand camouflage. This model, therefore, is all about U.S. Olive Drab.

High-quality reference material on the M3 Lee is plentiful. In particular, Allied-Axis issues 13 and 14 have tons of excellent photographs of the tank. Issue 13 covers stateside training, while issue 14 covers a period in late November 1942 immediately following a forced road march by units of the 1st Armored Division. Fortunately for us, this march—a 700-mile long journey from the entry point at Bone to the plains of Souk el Arba in Tunisia—was extensively photographed for our use as modeling reference material 60 years later. Okay, maybe not exactly for that reason, but we benefit all the same!

Although the photos are black and white, they provide great detail that really facilitates the weathering process.

## **A Heathy Update**

The Academy kit has come under some negative scrutiny since its release, largely because of its incorrect suspension height. Academy has addressed this issue by issuing a quasi-recall on the suspension sprues for the M3 Lee. Subsequent releases of the M7 Priest and the new M3 Lee and Grant kits include the corrected suspension sprues, but if you have an original Lee or Grant, go to the Academy/MRC website to obtain them. At the time



# FEDERATE



**1 and 2.** Construction begins with the removal of the front part of the lower hull to make way for the resin nose. This is the most difficult part of an otherwise straightforward update. **3.** Styrene shims are required to properly join the two parts due to an error in the cutting angle. I fill small imperfections with putty and mount the stock drive housings over the assembly. Overall, the fit is very good.

of writing, they are free to U.S. customers (limit two sets per customer). Just go to <http://www.modelrec.com/plastic-models/spruecrew.asp> and complete the online voucher.

Other criticisms of the kit are aimed at the rear turret bulge, the (arguably) incorrect hull angles and rivet detailing, the rear hull fittings and the exhaust system. Legend Productions has released a very comprehensive resin correction set that addresses all of these problems. The set also includes a small photo-etch fret to replace the headlight guards and some minor tool fittings. In fact, the Legend update replaces virtually all of the original Academy kit. Only the lower hull, barrels,

hatches, and minor fittings remain unaltered. If you go a step further and use yet more aftermarket parts, as I do, you end up with an almost entirely new kit.

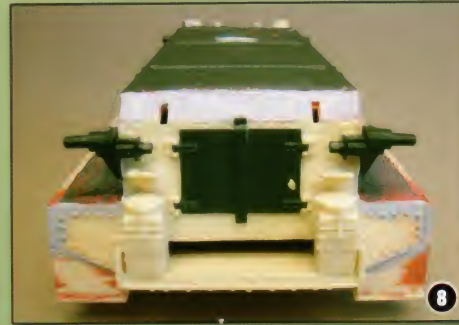
## New resin clothes

The construction of the Legend update proceeds similarly to the original plastic kit. After cleaning up the resin and removing the pour plugs, it's a simple matter to replace the main plastic components with the new resin ones. Some significant cutting of the plastic hull is necessary, but this is easily accomplished with basic tools. Other than that, this project requires nothing but superglue. As with any

resin kit, careful dry fitting is a must and really improves the final appearance of the model.

The first step is to remove the front end of the lower hull to make room for the new transmission section. The Legend instructions provide clear photos illustrating the necessary cut. I add some plastic strip between the resin nose and the hull to ensure proper fit—this is the only major hiccup I encounter during construction. The molding of the subtle texture and raised casting numbers is excellent. The resin upper hull is an impressively large casting, similar in size to the plastic part it replaces. It has a good fit with the edge of the transmission case and the sides of the lower hull, although I do





4. The large upper hull casting fits well with the edge of the transmission. Legend's casting detail is excellent and has only a few air bubbles. 5 and 6. I clean up the rear storage bins. The lower rear hull awaits the doors and exhaust system parts. 7. The quality of the upper hull is great. It is noticeably different from the stock part. 8. Rear doors and air cleaners. 9. The side hatch fits

perfectly. I use brass rods for grab handles and photo-etch for the latch. 10 and 11. Detail photos of the photo-etch headlight guards, MG barrels, tools and stowage. I use Mr. Surfacer liberally to help fill gaps and joints. The water and oil cans are from the Legend Sherman stowage set.

use some putty to fill in minor gaps. After joining the upper and lower hulls, I clean up and fit the two large rear storage bins.

Next, I add the rear hull plate (E28). This set includes some very nicely cast square-style air cleaners along with the appropriate fishtail exhaust outlets (E13 and E14). Also noteworthy are the delicately cast retainer brackets on the sides of the air cleaners. That more or less completes the lineup of the resin upper hull parts, since the hatches and tools are from the original Academy kit. I choose to retain these parts because the Legend equivalents have some small imperfections (which is par for the course with resin).

I fit the front fenders next, fixing numerous minor casting problems with Gunze Sangyo Mr. Surfacer 500 and sealing visible air bubbles and gaps with red putty. The alignment of the two front fenders is the most critical area during this stage of the assembly. Once the fenders are in place, I add the photo-etch fender supports (E4 and E8).

I retain the Academy rear fenders, but after comparing them to reference photos I determine that they are too long and far too thick. It's hard to tell, but they appear to have been made from a hard, rubber-like material, much like those on today's main battle tanks. Regardless of the material, they definitely need some attention to improve their

appearance. First, I cut them flush to the rear of the hull and then thin them considerably with a Dremel tool and small grinding bit. I'm a little too aggressive, however, and make a mistake on the right fender—but it's still a big improvement over the stock pieces.

#### Suspension woes

I turn next to the suspension. Here, I attempt to use the new Formations M3 suspension set coupled with new road wheels from the Tasca update set. Unfortunately my limited knowledge of this chassis bites me in the butt—I glue these bogies too high up the sides of the hull and have to remove them, destroying the delicate resin parts in the process. It is only after I try to fit the tracks that the error of my ways becomes apparent. But all is not lost—I also have Legend's M3 Lee suspension upgrade set and I rebuild the bogies using it instead. This time I double-check the height with a set of plans from my reference material to make sure that they are positioned correctly. To add insult to injury, after using both upgrade sets I realize that the Formations bogies are better cast and easier to construct. Legend's bogies are very delicate and difficult to mount to the hull with a straight, level fit. I use slow-setting gel superglue that affords me enough time to align all the parts correctly before drying; despite

my best efforts, however, the results are still imperfect. Because I want to use the Tasca T-51 Rubber Pad tracks instead of the stiff, one-piece Academy tracks, I switch out the Academy idler and drive sprockets for the superior parts in the Tasca suspension set. The molding on the Tasca tracks is great—only the new Dragon Styrene sets on the market are better.

Now for the turret and armament. Legend's resin main turret is excellent with superbly cast texture and details. I particularly like the rear bulge—it's a good match to my reference photos. The slotted rivets on the mantlet also really look the part. Mr. Surfacer fills some minor imperfections in the mantlet casting. My set is missing the resin MG barrels, so I cut off the plastic ones and use those, which ends up looking decent. The Academy kit includes both 37mm and 75mm barrels. I choose the 75mm gun barrel because the resin counterweight mold does not fit well with the shorter one. Photos in Allied-Axis 14 show vehicles with this configuration, so I know that my choice is historically accurate. One item missing from both the Academy kit and Legend update is the counterbalance often seen underneath the 37mm barrel in period photos. I fashion one from styrene rod for a quick fix.

At this point, all I have left to do is to add the





remaining fittings such as the lights, horn, tools and associated wiring. The tow cable provided is a nylon thread that I sort of regret using. I suggest a Karaya metal cable replacement or something similar. The nylon thread just doesn't capture the right look, especially after I drape it over the sides to match the reference photos. To make it stay put I have to add a few drops of superglue to the thread, which locks it into place in the shape I'm after. I carefully work my way down the cable with the glue to achieve the final position, and then remove it for later painting and the final fit.

The last bit of construction is to replicate the many stowed items visible on the Tunisian M3s. Each photograph shows an endless variety of early war equipment. To get that look, I combine some scratch built tarps with resin parts from Legend's Sherman stowage set, which includes several appropriate items like early-style water cans, wooden ammo crates, bedrolls and rolled camo tarps that I use to add some clutter to the tank. I then cover these with a few tarps that I make from Magic Sculp two-part epoxy putty. This is the first time I have attempted such a high level of detail, and I still have a lot to learn. A couple of tips for working with Magic Sculp: coat your work surface generously with talcum powder before rolling it out, and let the putty firm up for 20 to 30 minutes before applying it to the model. I use it too soon, and as a result it is a struggle to get believable folds and creases into the material. Overall, though, I am pleased with the results. To complete the look, I add straps cut from Tamiya tape and carefully apply them to the model with superglue.

**12.** The upper turrets are excellent. I have no problems mounting the plastic gun barrels. Note the new counterbalance for the 37mm barrel underneath. This was simple to make from styrene rod. **13.** I use Magic Sculp to make new tarps for the rear deck. I place these over the bedrolls, ammo boxes, and rolled camo nets from the stowage set. I use plenty of talcum powder to keep them from sticking to everything. The powder is still visible here, hence the grainy appearance. **14.** The model is now ready for paint. All stowage items have been test fit and then removed to be painted separately. **15 through 17.** The beautiful Formations M3 suspension setup. Photo 14 shows the suspension incorrectly mounted, a mistake that forces me to use new components. I use the Legend M3 suspension set with new road wheels from Tasca. The return rollers are from the original Academy kit. Careful cleanup ensures that the back of each bogie stays straight and true. Because the Tasca wheels are slightly wider than the Legend bogies, causing the lower axle mounts to spread, I use liberal amounts of superglue and accelerator to bridge the gaps and strengthen the units. **18.** The corrected model.







**19.** I thoroughly prime the model with Mr. Surfacer 1200. **20.** The first layer of paint is Tamiya Olive Drab. I add subsequent light layers of Lifecolor Olive Drab to create depth and to prepare the model for additional wear and tear. **21.** The markings are a combination of Eduard spray masks and serial number decals from Echelon. The yellow is just a generic mixture, and the markings on the front hull represent a tank from D Company, 2nd Battalion, 13th Armored Regiment of the 1st Armored Division (Old Ironsides).



**22.** I give the model a little bit of color modulation to help break up the paint job. I pick out and hand paint small details with a brush, which results in the variations of the OD seen here. I also hand paint the road wheels, the various tools and the MG barrels. I depict bare metal with Gunze Sangyo Steel and graphite. Using graphite on the edges of the road wheels is the easiest way to achieve the worn finish.



with tape and then spray with a dark yellow. For the vehicle number code, I use some decals from the new Echelon M3 Lee/Grant decal set, which have an accurate blue color; although the serial number is incorrect for this tank.

After applying the markings, the next task is to detail the tools and road wheels. I like the rubber to be a very dark brown-gray color and the wood handles to be a light hickory color. I paint the steel tool heads a very dark gray and weather them with graphite,

## U.S. Army Olive Drab

I now turn my efforts to painting. Before I start, I prime the model with the superb Mr. Surfacer 1200 aerosol primer—my personal favorite. There is but one glorious color for this vehicle: U.S. Army Olive Drab #9. This color is quite dark and has a variety of subtle purple and brown hues, which makes it hard to use straight out of the bottle. My goals are two-fold: I want a color that will create depth, and I want to be able to remove the outer layer to reveal a darker, fresh paint layer underneath. I begin by spraying the entire model with Tamiya XF-62 Olive Drab. Some say that this is the best out-of-the-bottle OD for armor. I like it because it is dark enough to use as a base coat. Unfortunately, weathering this color will only make it darker and ultimately too dark for a scale model. So, I coat the entire model with several layers of Lifecolor UA005 Olive Drab 41, which is made for USAAF aircraft. I keep these coats very light because I want the underlying Tamiya Olive

Drab to show through. This gives the model the depth of color that I'm after. To achieve the second part of my goal, I now use a thinner-based removal technique (similar to the one used on the Panzer IV DAK model in MMiR Painting Guide No. 3), which creates the appearance of wear by revealing the paint layers underneath. I will describe this process in more detail later.

Next up are the markings. I prefer stencils and paint masks whenever possible, and I use Eduard's U.S. Stars for the upper turret. I mask the yellow band on the turret and the two company symbols—in this case, D Company—on the front hull panels

which results in a realistic metallic appearance. I use the same process on the MG barrels. I generally avoid gunmetal paints because I find the metal flakes to be too large for scale detailing.

After the detail painting, I cover the model with



a couple of filters for increased depth, using Mig Production's Sin Industries P244 Green for Light Green and P245 Brown for Dark Green. Overlaying the two filter colors yields a very interesting result. I apply these filters with my airbrush, giving the model a few passes until I am satisfied with its appearance. I dry each layer thoroughly with a hair dryer to check the color quality before applying the subsequent layer.

### Wear and tear

With the majority of the painting complete, the next stage is to replicate the worn paint effects—the whole purpose of layering the two paint colors. Because I already successfully used this technique on the Panzer IV DAK model, I proceed with confidence. With a worn #5 round brush dipped in Tamiya Lacquer Thinner, I very gently remove the lighter outer layer of Lifecolor Olive Drab to expose areas of the darker Tamiya Olive Drab underneath. A word of caution: it is very important to remove virtually all of the thinner from the brush before applying it to the model; otherwise, too much damage to the paint will occur. My goal is to make heavily used areas appear darker and shinier. This process is slow but not too complicated. I do recommend, however, that you try this out on a scrap model before using this technique on your project.

I treat the entire model to this technique, and then touch up any errors with a fine brush and Tamiya Olive Drab. I also add small scratches and chips. To create the appearance of bare metal on the edges of the road wheels, drive sprockets and idler wheels, I use Gunze Sangyo H18 Steel and highlight with graphite.

### Final weathering

I apply a pin wash directly to each area of molded detail using Mig Productions P222 Neutral Wash. Using a mixture of this and a little of P221 Brown Wash, I create oil and fuel stains.

Once the washes are dry, I move quickly to the application of dust-colored pigments. Pigments are essential for replicating dust convincingly and the contrast between the lighter dust and darker OD has great visual appeal. As usual, I start by applying pigments to the lower hull. I apply them dry, using a mix of four or five desert colors, and then apply Mig Pigment Fixer with a large round brush. I gently touch the brush to those areas where I placed pigments, then let capillary action go to work. The fixer quickly soaks in, and once dry it looks very authentic.

On those areas of the model that would naturally accumulate dust, such as corners, joints, or changes in surface, I use a slightly different technique to set the pigments: I apply a light mist of fixer using my airbrush. The period photos are absolutely essential at this stage, and I refer to them frequently to guide me in the placement and opacity of the pigments. There is no substitute for quality references and having access to them really pays dividends for this model. In one particular photo, the crew rubbed SNAFU into the left rear stowage bin. I use a similar WW2 acronym on my model—FUBAR. GI lingo can be so cool, and it really gives this model some personality.

Finally, I add various stains to the surface of the model. Again, the reference photos are indispensable. I use Mig P220 Dark and Brown washes mixed with a little Pigment Fixer to impart a slightly glossy sheen to create marks like those visible in the photographs. I also hit the road wheel centers and any major service access location that would need oiling to work properly. Combined with the previous pigment layers, the results are very convincing.



23



24



25



26

**23.** I apply multiple filters to create further depth to the OD paint. The filters are layered, but I dry them completely between applications. **24.** The most unique aspect of the finish for this model is the process of removing the outer layer of paint with lacquer thinner, revealing the darker coat underneath. Note the contrast between the two OD layers. This technique is particularly helpful on areas of heavy crew use. **25.** Following the paint removal process, I layer in chips and scratches with Tamiya OD. This further increases depth. **26.** I treat certain areas of the finish, such as the top surfaces of the turret and barrels, to a very simple technique: I buff the paint with an old cotton t-shirt. This replicates the metallic sheen that results from friction with the crew's fatigues. The cast texture of the Legend turret is perfect for this technique.





**27.** I apply a pin wash with Mig Productions Neutral Wash. This color complements the dark OD nicely, offering subtle contrast for the details. For the stains, I use a mix of Mig's Neutral and Brown Washes. **28** and **29.** The application of pigments is simple and to the point. I prepare a dust-colored mix of four to five pigments and then do a dry application. I spray Mig Pigment Fixer

with an airbrush to seal them. **30.** I add more fuel spills with thicker wash mixtures. **31.** I apply pigments very generously to the lower chassis areas to show the results of a 700-mile march across the Tunisian desert. I layer lighter pigments over darker ones and follow this up with more wash stains.

Once the majority of the painting and weathering is complete, I paint the stowage and then put it back into the vehicle. Some items sit loose, indicating a vehicle at rest. The track sag is an effect of the recent road march and matches to the combat reference photos.







32



33



34



35



36



37

**32.** I add the colorful GI slang on the side stowage bin using a toothpick. **33.** The lower rear engine access hatch areas, liberally covered with pigments, washes and stains. **34.** To create even more stains and discoloration, I use a mixture of Dark Wash and Pigment Fixer. The Fixer creates a slightly glossy sheen to the stains. By varying the opacity of the wash, I can create different effects.

### Tasca tracks

During the construction phase, I assembled and test fit the Tasca tracks. Those tests showed the original length to be too long by two pads on each side. I make the necessary cuts to remove these two pads from each run and then re-glue the tracks. Tasca is really to be commended here—the tracks glue together easily and hold up well with just a few drops of Tamiya Extra Thin Cement. I also learn another thing about this chassis: it is best to use adjustable idlers whenever possible to obtain proper track tension, because M3/M4 live tracks have little, if any, sag. These parts are available from both Formations and Tasca. This model, like the tanks seen in my reference photos, has minor track sag as a result of extensive use. I create the sag by carefully spot-gluing the tracks in specific locations so that they will hold their shape.

Before mounting the tracks, I paint and weather them. The base rubber color is a very dark gray mixed with a little dark brown, much like the road wheels. On the end

**35 through 37.** I trim the Tasca tracks to the correct length and spray them with a very dark gray-brown color to represent rubber. I use Dark Earth to paint the end connectors, followed by Brown Wash for rust. Lastly, I dust the tracks with pigments.





The upper turrets are the last items to be finished and mounted onto the model. I glue down the main turret to prevent damage. The tow cable and some additional stowed items, such as the water cans, are also glued down to capture their shapes and prevent them from falling off of the model. Remember this model depicts a vehicle at rest after a long road march requiring service from the crew, so the many loose items would be returned to their proper place once underway again. While I am happy with the stowage presented, I could easily have added a lot more. However, what this model really cries out for is to be placed within a proper vignette or diorama setting including a base and appropriate groundwork. Figures are all that are missing, and I think that new early-war U.S. Tankers would be a perfect fit.



As mentioned in the text, the Tasca tracks are far superior to the Academy kit tracks. There are also the new Dragon DS T-41 tracks to consider, which are even better detailing on the end connectors than the Tasca tracks. My next M3 will be wearing those tracks to see how they work, but I am very happy with the look of these Tasca tracks.

connectors I use Lifecolor LC037 Dark Earth followed by a rust-colored wash. I then dust both track runs with the same pigments I used on the lower hull, and finish them off by gently rubbing a pencil on the inside of the guide teeth to show bare metal wear. Lastly, I hand paint the stowage in a variety of OD shades.

I really enjoyed this companion model to my previous North Africa build. The Academy kit, for all its faults, fills an important niche. Combined with the Grant and Priest models, Academy has filled some major gaps in the list of vehicle kits with contemporary tooling. When combined with excellent update sets from Legend Productions, Formations and other similar companies, we have the resources we need to make amazing replicas of these subjects. Now all we need is for the figure manufacturers to follow suit—some early-war U.S. tankers would be the perfect complement to this model.

—Michael Rinaldi

## MMIR RECCE

**Academy U.S. Medium Tank M3 Lee.** Kit number 13206. Kit graciously provided by the manufacturer. Suggested retail price \$30.00. This is the best M3 Lee plastic kit on market.

**Legend Productions M3 Lee Detailing Set.** Set number 1133. Kit graciously provided by the manufacturer. Suggested retail price \$55.00. This is the best overall Lee resin update set on market.

**Legend Productions M3 Lee Suspension Set.** Set number 1129. Kit graciously provided by the manufacturer. Suggested retail price \$15.00. This is a good product, but its detail and fit are inferior to Formations' product.

### References

*Allied-Axis: The Photo Journal of the Second World War, Issue 13.* "M3 Medium Tank, part two" by Pete Harlem. Ampersand, 2004. Suggested retail price \$15.95. This article includes stateside training photographs.

*Allied-Axis: The Photo Journal of the Second World War, Issue 14.* "M3 Medium Tank, part three" by Pete Harlem. This article contains superb Tunisian theater photographs.

*Militaria No. 108 M3 Lee/Grant* by Wojciech J. Gawrych. Wydawnictwo, 2000, ISBN 83-7219-073-9. Suggested retail price \$22.00. This book includes a foldout set of 1:35 plans of the main M3 variants, combat photos and color profiles. Polish text with English captions.

*Tanks in Detail No. 4: M3-M3A5-M31-M33-HMC7 General Lee/Grant* by Terry J. Gander. Ian Allan, 2003, ISBN 0-7110-2983-0. Suggested retail price \$25.95. This is a good overview of the M3 tank series and includes useful interior photos.



# MULTI-COLORED MOGGIE

## Perfect Scale Modellbau's Unimog S404



For the first 10 years of its existence, the Bundeswehr relied on trucks to transport personnel and equipment, both on-and off-road. Of the 69,000 trucks in service, fully 36,000 were Unimog S404s. Development of the Unimog (Universal-Motor-Gerät) began shortly after the Second World War under the supervision of Albert Friedrich, who was formerly the leader of the Daimler-Benz aircraft engine research division. Friedrich's goal was to develop an agricultural tractor that was both powerful and economical. Although Daimler-Benz was interested in the concept, the Allies had forbidden the company to participate in the project. Friedrich instead presented his idea to the machine factory of Boehringer in Göppingen, which immediately accepted the project and began to work on the vehicle's development. In 1948, Boehringer presented the first prototype in Frankfurt where it was an instant success. Due to the huge demand for the vehicle, Daimler-Benz was permitted to join the project. In 1951, production of the 1.5-ton truck commenced at the Gaggenau manufacturing plant under its own brand name. To date, this is the only plant that

produces Unimogs.

Development and construction of a military version with a 6-cylinder MB 220 engine, known as the Unimog S404, began in 1954. It had superb off-road capabilities, an exceptionally high ground clearance of 40cm—even more than the Humvee!—and it was both reliable and durable. Many armies around the world adopted the vehicle. During its 30-year production run, 65,000 trucks were built. In 1978 the U1300 replaced the S404, opening another chapter in the Unimog's success story.

### The kit

Perfect Scale Modellbau's Unimog S404 is a full resin kit that comes in a sturdy, large A4-format box with its parts packed in protective zippered bags. It contains 155 light gray resin parts, a small photo-etch fret, clear lenses, a sheet of clear plastic for the windows, decal sheets for three Bundeswehr vehicles, a length of wire and the assembly instructions. The instructions are clear, have exploded-view illustrations, and include painting references with generic color names and numbers. The quality of the resin casting is very good with only a few small air bubbles that are easily filled. All parts have the

usual casting blocks, but the carrier is only 0.5mm thick, making cleanup very easy. There are, however, some very delicate parts that will need to be removed from the casting blocks very carefully to avoid damage. All the parts have great detail—crisp and well defined.

### Construction

I have the special Euro Militaire edition of this kit that includes the NATO trailer. The trailer is a nice addition to the Unimog, giving it lots of potential for use in a small diorama.

Construction of the kit is straightforward and even less experienced modelers will find it fairly easy to assemble. With any resin kit, there can be a few air bubbles, but they are nothing that some Tamiya Putty, thinned with Tamiya Liquid Cement, can't handle. The smallest parts are a little trickier and require gentle handling and a sharp scalpel. Beware of the resin dust while sanding and cutting resin parts—always use wet sand paper and wear a particle mask for your own safety. I recommend that you use superglue. I prefer very thin formulations that are virtually invisible when dry.

I don't encounter any major problems during





**1.** Any air bubbles or small gaps are filled with Tamiya putty thinned with Tamiya liquid cement. **2.** The clear light lenses have been covered in Humbrol

*Maskol prior to painting. The masking fluid can easily be removed from behind the photo-etched brass guards after painting using a pair of pointed tweezers.*

construction. The fit on both the truck and the trailer is excellent. The casting is superb and none of the main parts are warped or damaged. The kit comes with a small photo-etch set with all the necessary details and can be built straight out of the box, but I do choose to replace the resin width indicators with new ones made of steel wire and a drop of white glue. I glue the lenses for the headlights in place and cover them with Humbrol Maskol. Next, I attach the protective wire mesh over the headlights. I work in this order to avoid having to glue after painting, which could result in some visible residue. The Maskol is easily removed with pointed tweezers. For the mirrors, I use self-adhesive chrome foil.

The rest of the construction consists of building the subassemblies for the cabin, cargo bed and chassis. When the model is completely built, I submerge it in warm, soapy water to remove any remaining resin dust, then set it aside to dry overnight.

### Painting

I initially planned on building a Belgian army Unimog, but I had some doubts about that truck's monotone olive drab finish. I would rather paint a lively, multi-colored camouflage, but I wasn't sure



which country's Unimog had an appropriate scheme. I eventually ran out of inspiration for this model, and my cleanly built Unimog ended up in a plastic box on a shelf.

A few months later at a meeting of my modeling club, some guys and I started talking about the Balkan War and the vehicles and arms used by the various armies involved. There were some books and magazines lying around, and a Concord book called *The Balkans at War: Yugoslavia Divided 1991* caught my eye. It contained many pictures of vehicles of different origins and various camo patterns and colors, from dull looking olive drab to exotic mixtures of glossy spray paints. There I found my inspiration: a four-tone camouflage Unimog belonging to the Croatian Army. The multi-colored camo on this truck consisted of a soft-edged

medium brown and light gray and hard-edged black "spiders" over an olive green base.

I rescue my Unimog and treat it to another bath to get rid of the accumulated dust. After it dries, I finally start to paint. I prefer to thin my Tamiya acrylic paints thoroughly—about 30 percent paint and 70 percent thinner. I also add one part Tamiya X-22 Clear to every three parts paint, which results in a better consistency and a smoother base for the upcoming filters. Because some of the resin parts are quite thin, I start with an initial layer of Tamiya X-18 Semi Gloss Black to ensure complete opacity. For the primer, I use Gunze Sangyo H311 Light Gray, but don't completely cover the Semi Gloss Black in the vehicle's darker corners. This way I can essentially prime and pre-shade in one step.

The base layer of the truck is a 1:1 mixture of Tamiya XF-56 Olive Green and XF-22 RLM Gray, which significantly tones down the green color. Next, I add some highlights to the center of the panels by adding more RLM Gray to the mixture. The orange brown camo color consists of equal parts Tamiya XF-68 NATO Brown, X-6 Orange and XF-57 Buff. The gray camo is straight RLM Gray. I airbrush these camo patterns with my Harder & Steenbeck Evolution and my compressor set to 7.25 psi. I hand





paint the black hard-edged camo with Vallejo Model Color 862 Black Gray using a 000 brush (I prefer Winsor & Newton Series 7, which are made of the finest pure Kolinsky Sable hair). The colorful Croatian markings are from Bison Decals. Before applying them, I spray a thin layer of Clear on the doors, which prevents any possible silvering of the decal carrier film. Although these decals are very thin I do use some Microscale Micro Set just to err on the side of caution. Once dry, I seal the decals with another thin layer of Clear. This last step is very important—I know from experience that Bison Decals disintegrate when they come in contact with the white spirit in my filters and washes.

I decide to paint the trailer a slightly different shade of green to provide some contrast. I start with a layer of Tamiya XF-16 Dark Green, which acts as a preshade. I then mix a small amount of Tamiya XF-15 Flat Flesh to the Olive Green and spray a thin layer, allowing the Dark Green to shine through. I add a few drops of Tamiya XF-4 Yellow Green to this

mix for the first highlight, and for the second I add a small amount of Buff.

I concentrate the highlights on the centers of the different panels to create additional depth. When I finish, I plunge my airbrush into an ultrasonic cleaner and let the model dry overnight.

### Weathering

To enliven the green color I start with a filter of Humbrol 25 Blue, which I allow to dry for three hours before following up with Humbrol 82 Orange Lining. I apply both filters to the entire model. I prefer to use Humbrol enamel paints, thinned 95 percent, for filters because of the excellent quality of their colors.

While I wait for the filters to dry, I make the license plates. I rely primarily on Archer decals, but I do choose to hand paint the small Croatian shield in the middle of the plate. For this and the rest of

the model's details, I use Vallejo Model Colors.

Next, I use a 000 brush to outline all the details with local washes comprised of various mixtures of Humbrol 33 Matt Black and 170 Brown Bess, thinned 80 percent. When the outlines are done, I let the paint dry completely before moving on to the next weathering step: oil paints. Oils are a great medium for weathering, but if you prefer you can use Humbrol enamels. Be aware, however, that enamels dry faster than oils and you will have less time to work with them. I randomly place very small dots of oil paint—white, yellow, blue, brown, dark green and light green—on a moistened surface. I then go over these areas with a dry brush using vertical strokes. This breaks up the colors and blends them into the model's surface. I give the floor of the cargo bay, which would have been covered in dirt and residue, a particularly heavy treatment with oils. I accentuate details with



*The base layer of the truck is a mixture of Tamiya Olive Green and RLM Gray. I add highlights by adding more RLM Gray to the mixture. The orange brown camo color consists of equal parts Tamiya NATO Brown, Orange and Buff. I apply these camo patterns with my Harder & Steenbeck airbrush. I hand paint the black hard-edged camo with Vallejo Model Color Black Gray.*





**3.** The cargo bed of the Unimog has a nice cluttered “lived in” look and even the smallest parts are painstakingly detail-painted and weathered. **4.** The weathering is a combination of Humbrol enamels and Mig Pigments. The Croatian License plate and door

markings are from Bison Decals. These are ultra-thin and go on really well with the aid of Microscale setting solutions.

some very light dry brushing. For scratches, scuff marks and chips, I use Vallejo 822 German Camo Black Brown. For rust streaks I use raw umber and burnt sienna artist oils.

At this point I start thinking about how I will present the completed model. I decide to put my Unimog in a summertime southern European setting, where the vehicle would have been exposed to a lot of dust while driving on unpaved roads. I make a wash with Humbrol 94 Brown Yellow, thinned 90 percent, to depict accumulated dust in the appropriate places: the complete underside, the mud-

guards, the side walls and the back of the loading space. I repeat this step several times; multiple light coats yield a more believable effect than one heavy wash. A final thin local wash of Brown Bess tones down the yellowish dusty color. Next, I add more scuff marks and chips using the camo colors to avoid a monotone look.

Remember, there is no fixed sequence when it comes to weathering. When you aren't happy with a result, you can always go back and forth between the previous steps. The only caveat is that you must be satisfied with the paint before applying any pig-

ments. If you do not like an effect made with Humbrol or oil paints, just use a moistened brush to wipe off the paint and try again.

Finally, I mix several tones of Mig pigments and apply them sparingly to the wheels and lower sides of the vehicle. Pigments are a great medium, but overuse can result in a dull looking model. For this reason I prefer to use oil and enamel paints for the majority of the weathering. I use gloss varnish, mixed with some dark brown, to depict fuel spills near the filler cap. With my finger, I rub some graphite onto the filler cap give it a bare metal look.





**5.** The trailer is filled with a selection of Pro Art Models modern oil/chemical drums and canister set. The ratchet strap holding the oil drums in place is made from Pro Art tensioners and Tamiya masking tape. **6.** Tamiya Masking tape is great for making modern style towing straps, as can be seen on the front fender. **7.** Several tones of Mig Pigments are used to give a naturally realistic dusty finish to the trailer wheels. **8.** Subtle chipping has only been added to the most exposed edges of the trailer. **9.** The Croatian emblem on the cab doors adds a nice splash of color.



The wooden planks on the bottom of the cargo bay are highlighted with lighter green and chipped with Humbrol 110 Natural Wood. I use the included clear plastic sheet to make the windshields. I then mask off the wiper arcs, spray a very thin mist of Tamiya XF-57 Buff over the windows and attach them to their frames with white glue.

Most of the accessories at the rear of the truck and trailer are from Pro Art's latest set, which includes a variety of cans, canisters, oil drums, etc. The wooden crate, filled with some tools from Lion Roar's German Field Maintenance Set, is made by Armand Bayardi. The baskets are from PlusModel. I hand paint all these items with Vallejo Model Color acrylics—painstaking work, but well worth the effort. I make the straps out of Tamiya Masking Tape combined with Pro Art tensioners. There are many opportunities here to add variety and color to your project. Finally, I add some extra details to the vehicle like chains, a canvas cover made of Magic Sculp, a spade, empty .50 caliber shells and ammo boxes.

#### Base


To keep the focus on the model itself, I build a fairly simple base. To do this, I cut a piece of insulation foam to the appropriate size and glue it to a wooden base plate. I spread a thin layer of Polyfilla over the surface and immediately cover it with fine sand, stones and cat litter. I also glue on some dried roots from the garden and add Heki and static grasses. The corrugated iron is a piece of metal foil shaped with a homemade jig. While the Polyfilla is still wet, I press in a damaged jerrycan and some

pieces of balsa wood. Once everything is dry, I air-brush the entire base with several shades of earth colors, and then spray the grass with various shades of green from dark up to light. After a wash of Van Dyck brown, a drybrush with Humbrol 84 Mid Stone, 72 Khaki Drill and 121 Pale Stone accentuates the groundwork. I also drybrush the grasses with sap green.

I prepare to attach the model by drilling a few holes in the underside of the tires and in the corresponding wheel prints on the base. I then affix the model to the base with copper wire and superglue.

To visually integrate the model into the base, I use the same mix of Mig pigments on the groundwork that I previously used on the vehicle.

#### Conclusion

With the release of this Unimog, Perfect Scale Modellbau has filled a gap in the currently available line-up of Bundeswehr vehicles. Their high quality casting makes this full resin kit accessible even to the less experienced modeler. 

—Hugo Luyten

## MMiR RECCE

**Perfect Scale Modellbau Unimog S404 & 1 ton NATO Trailer.** Kit number 35010. Kit graciously provided by the manufacturer. Suggested retail price €122.00.

**Pro Art Models Modern Oil/Chemical Drums and Canisters set.** Set number PAU-35011. Suggested retail price €23.50.

**Armand Bayardi Empty wooden crates.** Kit number M35/101. Suggested retail price \$9.00.

**Armand Bayardi Dented US jerrycans.** Kit number M35/103B. Suggested retail price \$5.50.

**Lion-Roar German Field Maintenance set.** Set number LAM006. Suggested retail price \$5.00.

**PlusModel Suitcase set.** Set number 113. Suggested retail price \$19.60.

**PlusModel Maps, boards, and manuals.** Kit number 035. Suggested retail price \$4.80.

**Bison Decals GROM Croatian Tanks 1991–95.** Set number 35003. Suggested retail price \$9.00.

**Mission Models .50 caliber spent shells.** Kit number MM004. Suggested retail price \$24.95.

*I would like to thank my friends at the KMK modeling club for the good times we have every Friday evening, enjoying modeling over a glass of beer. Their tips and advice are invaluable.*

#### References

"The Unimog" by Karlheinz Oechsler.

*The Balkans at War: Yugoslavia Divided 1991* by Eric Micheletti. Concord Publications, 1992. ISBN 978-962-361-910-3.



# Tiger Support

*Detailing Tamiya's "stubby" barreled Panzer III N with help from Voyager*



I must confess I am a diehard fan of Allied and modern armor and tend to leave the WWII German stuff to the guys who specialize in this field, but that doesn't stop me every once in a while when a certain Panzer comes along and I get that, "I want to build one of those" feelings. Tamiya's Panzer III Ausf. N just happens to be one of those kits. Being Tamiya, you know it's going to be quick and easy to build and will look pretty good right out of the box. When I get a kit like this (and haven't lost the will to live because it's made up of millions of pieces), I find I still have plenty of enthusiasm for a bit of detailing before I get stuck into the painting—which I have to admit is my favorite part of any modeling project.

The basic construction is very straightforward and should not cause any problems, but remember to pay careful attention when it comes to attaching the turret ring splash guard and the lower hull side escape hatches. These parts are specific to only two of the three vehicles included in the decal options. Basically, the Panzer III Ausf. N was remanufactured from the Ausf. J and L, meaning that the Ns built from late production Ls did not have the splash guard or escape hatches. These were deleted in an effort to simplify production. For more reference on

modeling the Panzer III I thoroughly recommend either the Panzer Tract book or the Achtung Panzer edition on the Pz III. Both offer a wealth of useful material.

## Modeling bling

From the outset, I know I want to add some extra detailing. I choose Voyager's Panzer III set, which has been specifically designed for this Tamiya kit and can truly be classed as a comprehensive detailing set. Not only does it come with all the usual photo-etch fixtures and fittings on its five various sized frets, but also includes new resin pads for the commander's cupola hatches, soft copper tow cables with resin end loops and a set of five turned brass smoke-pots for the smoke generator mounted under the rear hull overhang. To help fit this little lot, Voyager includes a comprehensive and easy to follow set of instructions.

This set includes just about everything you could realistically need to super-detail the Tamiya model. So much so, in fact, that I wimp out and only use the parts I think will really help improve the basic kit while still retaining a modicum of sanity. I decide that just adding the release handles for the tool

clamps, new tow cable stowage brackets, the missing engine deck lifting hooks and the turret bin and toolbox locking clamps will just about do it!

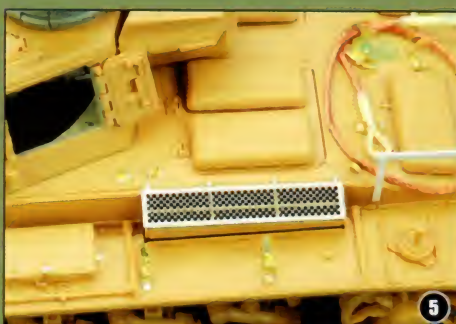
## Baggage rack

Most of the Panzer III Ns assigned to sPzAbt 501 had some form of welded steel rack on the rear of the engine deck to stop those precious personal items of stowage from falling off as these machines clanked their way across the Tunisian deserts. Mine is made from Evergreen .015 x .060 plastic strip and fixed in place using Tamiya Extra Thin Cement

## Panzer priming

With the assembly finished, it's now time for my favorite bit: the painting and weathering. First, I give the model a coat of primer. Back at home in the UK I use an automotive acrylic gray primer manufactured by a company called Hycote, but since I didn't think it wise to sneak a dozen cans onto my plane bound for Florida I have to find an alternative. Thankfully here at Ampersand Towers we do have an ample supply of the Mr. Surfacers range of primer spray cans. This is the first time I have tried any of these and I have to admit the can of 1200 works





**1 and 2.** In these shots you can see that I haven't used too much from the Voyager set, but rather just enough to really enhance the level of detail in the Tamiya kit. **3.** One of the characteristic features of the Panzer III Ns assigned to PzAbt 501 was the use of sandbags to supplement the frontal armor. I make mine with Aves Apoxie Sculpt, creating the texture by stippling a stiff bristled brush over the bags before they cure. **4.** Included in the Voyager detailing set are two 20cm lengths of soft copper wire to make the tow cables. These are a vast improvement over the molded plastic part supplied in the kit. **5.** The photo-etch engine intake mesh screens along with a turned aluminum barrel are included in the Tamiya kit. It's a good start, but Tamiya has a long way to go before it can match the amount of extras included by

other manufacturers like Dragon Models. **6.** I swap the Tamiya cupola for this very nice resin upgrade from Tiger Model Designs, which comes with clear resin parts for the vision blocks and all the other interior details missing from Tamiya's original. I replace the turret roof grab handle after I managed to destroy the plastic part with some ham-fisted handling! **7.** Tiny injection plastic wing nuts from The Armoury by Gauntlett, available from M&Models. **8.** Missing from the kit is the electrical conduit to the fender-mounted Notek light. I use soft solder wire to tie the sandbags in place. **9.** Here you can see Archer's excellent weld seams. Although hardly visible, I give the numerous screw heads on the turret roof their missing slots using a pointed scalpel blade.

extremely well. I like the way the paint pulls in tight onto the surface and dries to a really smooth finish.

### Wonder welds

Just before applying the base colors, I decide this is the perfect time to add the missing weld seams from around the front plate of the turret, which for some reason Tamiya has left off. Thanks to Woody at Archer Fine Transfers, missing weld seams are really simple to add using some of the textured waterslide decals. I simply cut these to the correct length with the help of a steel rule and a fresh scalpel blade. The decals can then be immersed in water to release the backing paper, and then you just carefully slide them into place like any other waterslide decal. The result is a set of convincing looking welds, which were a breeze to apply. Superb stuff.

### Panzer painting

The next step is to apply a base color. As a rule, I never worry too much about the getting an exact color match for the original color, because by the time all of the weathering processes are in place the color ends up looking nothing like when it came out

of the bottle or jar. To start with, I give the entire model (minus the wheels) a coat of Tamiya XF-59 Desert Yellow, thinned with Tamiya's own thinners and sprayed on using an Iwata HP-C Plus airbrush with the pressure set at around 25 psi. I follow this by misting a mix of Vallejo's Panzer Aces 340 Highlights Afrika Korps and Lifecolor UA706 Dust Type 2 onto the center of the panels and in a random patchy finish over the upper surfaces to simulate sun bleached paint. Now it's time to add some markings. For these, I use Archer Fine Transfers, which are most definitely my preferred choice when it comes to adding markings to any of my armor projects. The next stage, which is something I'm still experimenting with, is to combine the sponge technique of dabbing various lighter and darker tones of the base color over the model. The darker tones are concentrated onto center of the panels and horizontal surfaces, while the darker tone, in this case Vallejo Model Color 880 Khaki Gray mixed with varying amounts of Highlight Afrika Korps.

### What a mess

By this time the model is looking pretty scruffy, and the next stage is going to make it look even

worse. I add some randomly placed patches of light colored sand, using a technique commonly known as "mapping." Now the model is looking really ugly, but have no fear: some Sin Industries Filters are on the way to tone things down. I use a mix of Neutral Wash, Brown for Desert Yellow and Gray for Dark Yellow in no specific order, but making sure I keep the tones random. I now allow the filters to dry fully before employing a technique that some modelers think is old-fashioned: adding some subtle dry-brushing using oil paints. This is done more to help blend the previous effects than to highlight details and edges in it's more traditional use. Now the problem with using oil paints is that they do take a fairly long time to dry fully, so I make full use of my new surroundings here in sunny Florida and put the model in a sealable container that I pop out in the sun for the day to sweat the linseed oil out of the paint. This works so well that after a day I am able to give the model a coat of Vallejo Model Color 520 Matte Varnish the very next day. Besides removing the last of the shine from the oil paint, this also helps to tone down the effects just a little bit more.

Now it's time to add some scratches, paint





**10.** With the base color, markings and initial fading in place, the “three” still looks bland and lifeless. **11.** The first stage of the serious weathering involves sponging on mixes of Vallejo Khaki Gray and Panzer Aces Highlight Afrika Korps. The darker Khaki is concentrated on the edges. **12.** The model has received some acrylic paint “mapping.” This is most noticeable on the top of the mantlet. A mix filter is now being applied to start toning down and unifying these previous effects. **13.** Here are the Mig products used in photo 12. **14.** The caked on mud and dust have now been added to the lower hull using a combination of Mig pigments. At this stage, I have also added scuffs to areas of high wear such as the base of the turret escape hatches, turret roof and mantlet. **15.** A mix of Ashes White, Buff and Light Mud pigments add a dusty finish to the recessed area of the track links.

scuffs and just a few chips, which I apply with a 000 brush using lightened shades of the base colors. For the chips and scratches that expose bare metal, I use Vallejo 822 German Camo Black Brown. This color is perfect for replicating the deep brown color of exposed armor plate.

#### Dust off time

Lately, I have been practicing mixing oil paints and pigments together to make a nice chalky wash that is great for recreating layers of dust, especially around raised detail and in recessed areas such as panel lines. For this desert-based vehicle, I use a mix of Abteilung 502 125 Light Mud and 035 Buff oil paints with Mig pigments P022 Ashes White. Next, I thin this mix with white spirits and apply it around the details with a fine tipped brush as I would a normal pin wash. For areas like the mudguards, I use a broader brush to help the mix flow amongst the raised dot-pattern of the tread plating. I find that combining these two media results in the perfect working time. Even once dry to the touch, the excess can simply be brushed off before allowing the oil paint to dry fully to a fairly durable effect.

To finish off I add some stowage from Pat's spares box. As usual, I spend way more time than I anticipated painting these items—I guess I love painting these extras because I know they are an important part of bringing the model to life. The last thing I like to do is to add some of those random

stains that appear on armored vehicles, which you normally see on engine decks and around lubrication points. Since its recent release onto the market, the Mig Productions Oil and Grease Stain Mixture has become the ideal medium for perfectly replicating these stains.

These Tunisian Panzer III Ns of Abt 501 were new vehicles and in the reference photos I could find showed very little battle damage or paint wear, which is why I'm keeping mine fairly neat. But if you like the idea of heavily weathering a Panzer in the North African campaign, then Mike Rinaldi's painting guide in issue 46 will offer all the guidance you need for the ultimate in desert weathered finishes.

#### Making tracks

I choose to chuck on a set of the excellent Friulmodel white metal working tracks to replace the “rubber band” tracks that Tamiya supplies in the kit. Generally, these Friul tacks don't take long to clean-up. I just run an appropriate size drill bit fitted to a pin-vice through each of the guide pin holes to ensure that they are clear of any white metal flash before inserting the wire to link them all together. I tend not to use the wire included in the Friul tracks because it's a bit on the soft side and stretches over time, which can cause the gap between the links to slacken and leave you with



some very saggy tracks. I normally use brass wire/rod for the pins but on this occasion, Jeff at our office suggested I use a bunch of flattened steel wire, which we think is the stuff used for making staples. This material is great to use for two reasons: firstly because you can really apply some pressure when inserting it, and secondly because its flattened profile grips the sides of the holes, negating the need to apply superglue to fix each pin in place. My only word of warning is to make sure you were some form of safety eyewear when cutting any metal wire and be prepared to ruin a pair of cutters in the process!

#### Fade to black

Now I have a neat set of very shiny metal tracks. The next step is to tone them down, and the best product to do this is Blacken-It. This blue fluid is





16



17



18

**16.** The Friulmodel tracks have been soaked in Blacken-It, which gives them this great rust brown finish. **17 and 18.** Once the dust dries, the next step is to burnish the contact areas of the tracks. To polish the inner faces in contact with the road wheels, I use a fiber pencil loaded with graphite powder. For the outer faces I use a fine grade sanding pad to polish the cleats to a high shine. **19.** Overall shot showing off to good effect all of the weathering techniques.

designed to weather or "antique" metal and is commonly used in model railroading to get rid of the shiny rails of the tracks.

All you will need is a Tupperware-style container with a lid into which you pour some of the Blacken-It. Then simply immerse the tracks, close the lid tightly and gently agitate the container for a few minutes. You will notice the transformation from the bright white metal to a dark brown almost instantly. The longer they are left in the solution, the darker they become. I remove the tracks after a few minutes, rinse and neutralize them under running water, and then put them aside to dry. As you can see from the accompanying photos, without doing any further weathering they look great. The big advantage over paint is that you can't chip this stuff off by accident.

With a mixture of Mig filters and pigments, I wash and stipple the outside face of both sets of tracks, then leave them to dry fully. You can speed up this process by giving them a blast with a hair dryer. Next, I introduce the areas of wear to the raised cleats and the sides of the guide horns by carefully rubbing a fine-grade sanding pad over the outside face of each track and along both sides of the guide horns. This very effectively yields a polished surface.

#### Treading up

The tracks do take some care and patience to fit correctly over the sprocket teeth and to attach the two ends together. I use some round section brass wire, which is much easier to insert than the flat section steel wire used for the rest of the link assembly. Trying to force steel wire in now would be an accident waiting to happen!



19





20



21



22




23

**20.** As can be seen here, paint chipping has been kept to a minimum. **21.** Some spare track links from a Marder have been used to supplement the turret roof armor. These ModelKasten links were first painted with Panzer Aces Track Primer, then weathered with various pigments. **22.** Most of the stowage is from different Legend Productions resin stowage sets. Note the aerial recognition swastika, which has been stuffed into a the metal box. **23.** Thankfully, Friul supply lots of spare links in their track sets, leaving plenty to stow-up a tank.

## Conclusion

Typical of Tamiya, this Panzer III is beautifully engineered and goes together really easily. The instructions are clear, concise and straightforward, making the kit perfect for the more inexperienced modeler. Also in typical Tamiya fashion, some of the detail is a little simplified compared to recent releases from the competition, but for me this is half the fun—I get to chuck on some extra detailing to make the kit feel like it's my own and not another state of the art kit that doesn't need a single extra part added! I must admit I didn't end up using too much of the excellent Voyager detailing set, but I think what I did choose to add made a satisfying difference to the look of the finished model. I also have to admit the Tiger Models cupola was a bit of a luxury item, but what the heck, we had one at the office for review and it does look a lot better than the kit part, especially because it includes all the cool interior detailing.

This is definitely one of those kits I really enjoyed building, painting and weathering, and one I'm proud to add to my collection. 

—Spud Murphy

## MMIR RECCE

**Tamiya Panzer III Ausf N.** Kit number 35290. Suggested retail price \$66.00.  
**Voyager Tamiya Panzer III N detail set.** Set number 35228. Suggested retail price \$35.95.  
**SKP German 2mtr turned brass antenna.** Set number SKP049. Suggested retail price €5.99.  
**Tiger Models Panzer III/IV cupola with interior.** Set number 352062. Suggested retail price \$12.50.  
**Archer German Turret Numbers.** Set number AR35038. Suggested retail price \$11.95.  
**Archer German Fire Extinguisher Placards.** Set number AR35266. Suggested retail price \$6.95.  
**Archer Tiger Battalion Insignias.** Set number AR35136. Suggested retail price \$6.95.  
**Archer Weld Seams.** Set number AR88005. Suggested retail price \$14.95.  
**Friulmodel Pz III/IV white metal tracks.** Set number ATL-04. Suggested retail price \$44.95.

## References

*Armor of the Deutsches Afrikakorps* by Tom Cockle. Concord Publications No. 7021, 2000, ISBN 962-361-631-7. Suggested retail price \$18.50.  
*Panzers in North Africa* by John Healey. Concord Publications No. 7043, 2004, ISBN 962-361-685-6. Suggested retail price \$16.50.  
*Panzerkampfwagen III* by Thomas Jentz and Hilary Doyle. Panzer Tracts No.3-3, 2009, ISBN 978-0981538242. Suggested retail price \$29.95.  
*Tiger I On The Western Front* by Jean Restayn. Histoire and Collections, 2001, ISBN 978-2913903135. Suggested retail price \$55.00.  
*Achtung Panzer No.2 Panzerkampfwagen III* by Hiroshi. Dai Nippon Kaiga, 1991, ISBN 978-4499227063. Suggested retail price \$29.95.



# No freedom without blood

The Accurate Armour  
Humber 1-ton Truck



**T**he Humber 1-ton truck was jointly designed by the Ministry of Supply and Rootes Ltd. in the 1940's to replace the wartime 15-cwt trucks that were still in service. Although initial design proposals were based on the 15-cwt, by the time the first prototypes appeared in 1950 the FV1600 chassis had been upgraded to a 1-ton capacity. At that time, these vehicles were reputedly among the British Army's finest. They had impressive cross-country performance with a fully independent torsion bar suspension, built-in waterproofing, fully tropicalized components, lashings for air portability and a 2-ton winch. The engine was from the standardized Rolls-Royce B range, and the standard version had a double-skinned pressed steel cab with both tropical and arctic insulation.

Most Humbers were built between 1952 and 1953, with a production total of approximately 3,700 vehicles. Interestingly, the Army kept the majority of these vehicles in storage for future use, putting them into service only as needed. Nearly half of the original production FV1600s were converted to the armored version and issued to the infantry. During the 1960's, the British government began to sell

excess inventory of these vehicles, but soon realized that they were extremely well suited for service in the areas in which the Army was involved at that time, particularly the Middle East. This discovery prompted the government to repurchase large quantities of Humbers, usually at prices greater than those at which they had just sold them. The Humber 1-ton 4x4 truck remained in service through the early 1990's.

## Construction

My Humber 1-ton truck is set in the hot, dusty, rocky environment of present-day Yemen during the Aden Emergency. This Accurate Armour kit includes 75 gray cast resin pieces, a photo-etch fret, a sheet of markings, a bit of twine, wire and a sheet of clear acetate for the windscreens. An 11-page instruction booklet provides step-by-step photographs and brief written instructions.

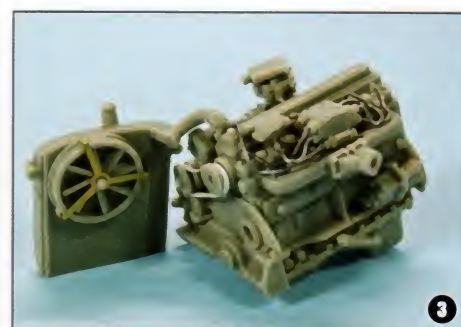
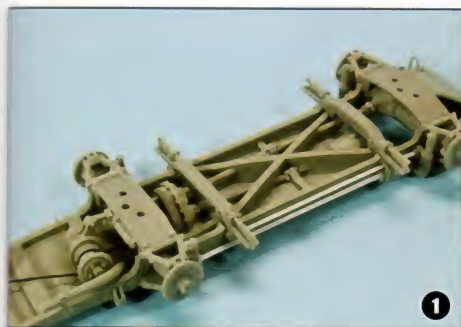
The first six steps involve the construction of the chassis and suspension. The truck takes shape quickly and easily. Detail parts in this area include the torsion bar adjusters, drive shaft, steering assemblies, exhaust system and winch assembly (photo 1). Photo-etch makes an early appearance

in the form of nicely detailed grated fuel tank covers (photo 2). The only problem I encounter during these opening steps is with the small pass-through holes on either side of the chassis, which require some extra drilling and clean-up.

Next up in the instruction sequence is the engine. Now, I've never liked showing off an engine just for the sake of showing off an engine. This little pet peeve of mine causes a dilemma that ends up dogging me throughout the project. What should I do with this nicely cast engine? Isn't it a shame to waste such a great piece after Accurate Armour went to all the trouble of having it mastered and cast? The engine's surrounding compartment is highly detailed, and includes a radiator, fan, air intake, and oil filter. Together, the engine and its compartment comprise 10 beautifully cast parts. The kit includes small-gauge solder to replicate the spark plug wiring, and I scratch build the belts with small paper strips (photo 3).

Since I can't seem to decide whether or not to display the engine, I set it aside for the time being and resume work on the body, which I build in sub-assemblies for ease of painting. The truck really begins to take shape as I begin work on the cab and





## The Aden Emergency

**F**rom the late 1950's through the 1960's, Britain found itself engaged in the small country of Aden at the mouth of the Suez Canal, which had been under its influence since 1838. Egypt and Yemen took advantage of the growing anti-colonial sentiment in Aden to foster an insurgency against the British. On December 10, 1963, members of the Adeni National Liberation Front (NLF) carried out a grenade attack against the British High Commission, killing one person and injuring fifty. The British Government declared a state of emergency.

In 1964, the British announced their intention to restore independence to the region by January 1968 and to turn the country over to the South Arabian Federation, a tenuous alliance they had negotiated among local sheiks. The South Arabian Federation's military arm, called the South Arabian Army (SAA), numbered about 15,000 troops and had its own artillery, armor and engineers. It was commanded by British officers.

Throughout 1964 and 1965, anti-British

guerrilla activity intensified. In January 1964, the British moved into the Radfan Hills in the border region to confront NLF guerrillas. This operation was code-named "Nutcracker." In April, a second operation called "Cap Badge" had the overall political objective of reasserting Federal Authority and making the hotly contested Dhala Road safe for traffic.



The situation in Aden deteriorated further in 1966 with the creation of the Marxist Front for the Liberation of Occupied Yemen (FLOSY), a rival anti-colonial organization that battled both NLF and the British. In 1967, mass riots by members of both the NLF and FLOSY, combined with a mutiny within the SAA, convinced the British to leave the region earlier than they had planned.

The British withdrew from Aden in November 1967, leaving the area under NLF control. Civil war ensued. In 1969, FLOSY consolidated power and, in late 1970, founded the People's Democratic Republic of Yemen. Aden was named its capital.

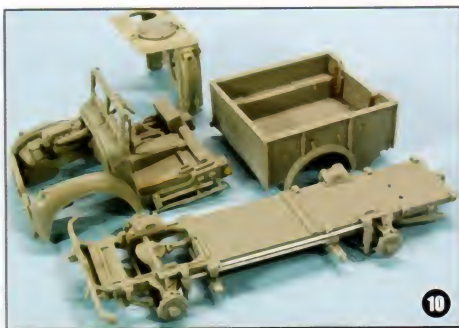
front fenders. Using the cab front as an anchor, I can affix the front fenders to the firewall, creating the truck's signature profile (photo 4). The front panel attaches to the forward fenders and defines the engine compartment. The front grille is a nice piece of photo-etch, but take care while bending the part to shape. The instructions do provide an expanded profile view of the grille's final shape, but the four bends, each about 30-degrees, are a little painstaking.

The cab interior has the requisite levers, dashboard and steering wheel. I also assemble the driver and passenger seats at this time and set them aside to be painted separately (photo 5). The cab top completes the structure of the crew area. Finally, I attach the spare tire and junction box along the rear wall with photo-etch brackets (photo 6).

The two portals and hatches on the cab roof are characteristic features of the Humber truck. Unfortunately, my (repackaged) kit is missing one of the hatches. The Editor assured me that a replacement would soon be at my doorstep, but in the meantime I decide to try my hand at casting one myself using one of the other hatches as the pattern (photo 7). This may be old hat to some of you, but I'm a casting virgin. Much to my delight, however, after just 24 hours I have an exact replica of my missing hatch and I'm back in business (photo 8). The remainder of the work on the cab exterior consists of applying the pioneer tools, grab handles and foot rails.

One of the few remaining components is the rear cargo tub. This is essentially a single piece unit onto which I attach a couple of smaller panniers and the rear gate (photo 9). This area, which uses 14 photo-etch tie-down hooks, is quite labor-intensive.





At this point the construction is almost complete. I have the four main sub-assemblies, a number of miscellaneous smaller parts and, of course, that troublesome engine, which is still awaiting final assembly. The dry-fit looks good; it must be time to paint (photo 10).

### Painting

When working with resin it is particularly important to have a perfectly



clean, smooth surface prior to painting. I give all my parts a wash in soapy water, and then apply a primer layer of Gunze Sangyo Mr. Surfacer 1000 (photo 11). Although I'm still putting off the decision to display the truck with the hood open or closed, I do know what paint scheme I want to use. This Humber is a companion piece to the Bedford that appeared in the previous issue. My research on the Aden Emergency provided me with numerous examples of camouflage schemes, so this decision was easy: since the Bedford is green, the Humber will be sand with black stripes.

But first things first: I have to take care of that engine. I do this with Vallejo Model Colors, using various mixes of greenish grays. I am careful to vary the tones slightly among the parts to emphasize the engine's details. I paint the fan and radiator too, giving them a base coat of green; then, per my reference photos, I add a splash of red to the fan blades. I follow the green with few dark brown washes to further bring out the details and to start creating the appearance of grime. I add the final touches of dirt, grime and wear with Mig pigments. Even though I'm still not sure what to do with the engine, at least it looks nice! (photo 12)

Because most Humbers in service at this time had been taken from storage, I decide to paint the interior portions of the vehicle in its original green color. I spray a mix of Tamiya XF-67 NATO Green, XF-51 Khaki Drab, XF-55 Deck Tan and XF-2 Flat White into the cab interior, rear bed and engine compartment. I also add a few drops of Microscale Micro Satin to my paint mix to get a smoother, harder finish. I pick out the cab details with a small brush and Vallejo acrylics, and generously apply Mig pigments to the floor (photo 13).

Moving right along, it's now time to get busy with the exterior. The first step is to apply a base coat of sand color that I mix from Tamiya XF-60 Dark Yellow and Flat White. Again, I occasionally vary the color mix to add highlights and lighten the upper surfaces (photo 14). I paint the undercarriage and the wheel wells with a dirty, gray color in preparation for heavier weathering.

And now the moment we've all been waiting for—painting the dark camouflage stripes. Had I been thinking ahead I would have better prepared for this step by having the proper tape or even Silly Putty. Being the impatient modeler that I am, however, I just use what I have on hand: painters' masking tape. Fortunately, because this tape is low-tack, it works just fine. Keeping an eye on my reference photo, I slowly work my way around the truck, masking off the appropriate areas (photo 15). After one last check to make sure that the tape is firmly in place, I spray on the dark camo color, a 7:3 mix of Vallejo 950 Black and 822 German Camouflage Black Brown (photo 16). To add subtle highlights, I add a few drops of 976 Buff to the mix for the upper

surfaces. I then remove the masking tape and begin the first phase of weathering with a spray of Tamiya XF-57 Buff on the lower areas, where I want to show accumulated dust (photo 17).

### Weathering

From this point forward, I rely primarily on my brushes and Vallejo paints. My goal is to complete as much of the weathering as possible solely with acrylics. I really like the high degree of control that this medium affords me. I want to portray a truck that endured a lot of hard use in a rough environment—this means plenty of rock chips, scratches and dust (photo 18).

My approach to weathering is based on three principles: frequent color changes, many thin layers, and a tendency toward randomness. Together, these techniques yield a natural, realistic appearance. I also like to take frequent breaks to step back and get a more holistic, objective view of the model. This helps me from obsessing over any particular detail, and allows me to use minor mistakes to my advantage—in the words of late TV painter Bob Ross, I view these as “happy accidents.”

I begin by adding the tiny nicks and chips that would result from traveling across rocky, sandy terrain. To do this, I use small pieces of a Scotch-Brite pad to lightly dab on brown and yellow tones, concentrating on areas more prone to wear, such as the fender edges and lower body sides. I follow this with the first application of small scratches, which I create by “dancing” a sharp 000 brush over the surface, leaving traces of yellows, buffs and browns (photo 19).

At this stage, the chips and scratches still





appear to be lying on the top of the paint and the finish still looks too homogeneous. Artist oils are an excellent medium for addressing both issues. I recommend the oil dot method: place small dots of oils on a surface pre-moistened with thinner, and then rub them in with a soft brush. On this vehicle, I use paler colors such as yellow ochre and white on the

lighter panels and darker colors, including red, for the black stripes. This technique helps certain chips and scratches fade into the background, while making others more prominent. The overall result is realistic and balanced (photo 20).

Numerous washes and filters further refine and define the details. On those areas where dirt and dust were most likely to accumulate, I apply washes of Mig 502 Abteilung 130 Dark Mud and 125 Light Mud artist oils (photo 21). I use these same colors, along with Van Dyke brown, to apply pin washes around the surface details (photo 22). On the upper surfaces, I apply acrylic filters to depict sun fade and oxidation. When using acrylics immediately after oils, add a drop of liquid dish soap to the filters. This breaks the surface tension between the two media and allows the acrylics to flow freely (photo 23).

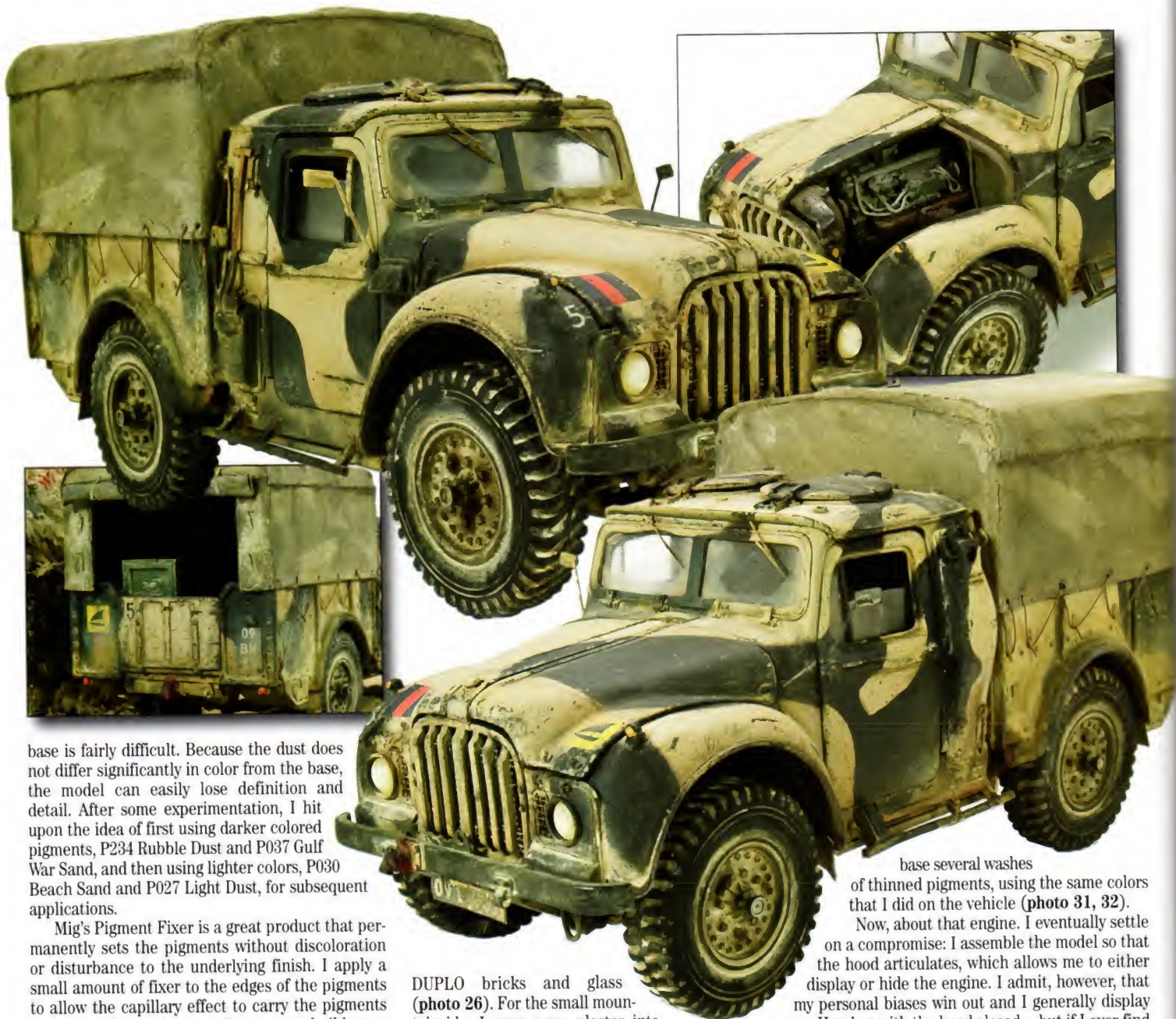
The final weapons in my weathering arsenal are Mig pigments. I prefer to apply pigments using the wet technique: I first mix the pigments with thinner to a

muddy water consistency, and then apply small drops of the mixture to the surfaces. I begin in those areas with the heaviest accumulations of filth, such as corners, nooks and crannies. Once this dries, I repeat these applications, gradually expanding the target areas until I am satisfied with the coverage (photo 24).

Creating a dusty appearance on a light colored







base is fairly difficult. Because the dust does not differ significantly in color from the base, the model can easily lose definition and detail. After some experimentation, I hit upon the idea of first using darker colored pigments, P234 Rubble Dust and P037 Gulf War Sand, and then using lighter colors, P030 Beach Sand and P027 Light Dust, for subsequent applications.

Mig's Pigment Fixer is a great product that permanently sets the pigments without discoloration or disturbance to the underlying finish. I apply a small amount of fixer to the edges of the pigments to allow the capillary effect to carry the pigments outwards. This technique allows me to build upon my prior applications without fear of disturbing or ruining them. To achieve the look of blown dust, I first dampen the surface with fixer, then use a large, soft brush to dab pigment onto the moistened area. The fixer "grabs" and sets small amounts of the dust. Several repetitions of this process may be necessary to achieve the desired result.

The Humber's rear canopy is a great-looking one-piece unit with excellent texture. To finish this area, I begin with a base coat of Tamiya Deck Tan, and then highlight the areas along the edges and support bars by adding Flat White. A wash with Light Mud oil then a quick application of Beach Sand and Light Dust pigments, and I'm all but finished (photo 25). The tie-down cords are brown-colored fishing line.

#### Setting the scene

At this point the model is more or less complete, and I turn my attention to the base. My inspiration comes from a photograph of a British soldier in Aden contemplating a hastily scrawled slogan: "No Freedom Without Blood." This base is a rather simple affair, made wholly from painted plaster of Paris. I make the mold for the plaster from LEGO brand

DUPLO bricks and glass (photo 26). For the small mountainside, I pour some plaster into the corner of a container and let it harden. The next day, I attach the mountainside to the flat base with white glue, then pour plaster down the mountainside and allow it to run freely. This results in a rocky texture (photos 27). With a small screwdriver, I scrape out road ruts. I spray the entire base with a variety of earth and sand colors from Tamiya and Vallejo (photo 28, 29) then carefully pick out the details with a brush (photo 30). The final touch is to paint the slogan in red paint. I then give the

base several washes of thinned pigments, using the same colors that I did on the vehicle (photo 31, 32).

Now, about that engine. I eventually settle on a compromise: I assemble the model so that the hood articulates, which allows me to either display or hide the engine. I admit, however, that my personal biases win out and I generally display my Humber with the hood closed—but if I ever find some appropriate figures I may redo the scene to show troopers working on an overheated engine.

In September 2008, as I write this article, there are reports that the U.S. Embassy in Yemen has been attacked. I cannot help but reflect on the similarities between those events of 40 years ago which provided the context for my model and current world affairs. ☹

—Rick Lawler

## MMiR RECCE

Accurate Armour Humber FWD 4x4 GS FV1601. Kit number K146. Suggested retail price £59.57.

#### References

Britain's Small Wars. <http://www.britains-smallwars.com/>  
 The Kings Own Yorkshire Light Infantry Brigade. <http://koyli.com/aden.htm>  
 Psywar.org. <http://www.psywar.org/aden.php>  
 Soldier: Magazine of the British Army. <http://www.soldiermagazine.co.uk/flashback/index.htm>  
 JED: The Military Equipment Directory. [http://www.jedsite.info/transport-hotel/hotel-humber/1ton\\_series/1ton-series.html](http://www.jedsite.info/transport-hotel/hotel-humber/1ton_series/1ton-series.html)  
 REME Museum of Technology. <http://www.rememuseum.org.uk/vehicles/vehindex.htm>



# Zavod's 2-Seater

Checking out MiniArt's tiny T-70M



**M**iniArt has gone where other manufacturers fear to tread with its release of the T-70M Soviet Light Tank. Packed in a sturdy box, the T-70M kit has 351 parts, although most of that total consists of individual track links. Molded in light gray styrene, all of the major components are logically placed on one large sprue. Other details, such as the driver's hatch, road wheels and idler arms, are situated on a pair of identical trees while the individual links are arranged on four. The figures have their own sprue. A small sprue of clear plastic parts, the instruction booklet, and a small decal sheet with markings for four vehicles round out the kit's contents. I find very little flash on any part, and ejector pin marks are minimal, making this an easy

and quick kit to build.

As a bonus, MiniArt includes no fewer than five beautiful, well-sculpted figures. That is particularly unusual because the T-70 only had a two-man crew. All of the figures are in casual poses and wear early war winter attire. They are equipped with pistols and three-piece headgear, and one dude even brandishes a meaning looking map case. The figures have decent facial expressions that are suitable for painting.

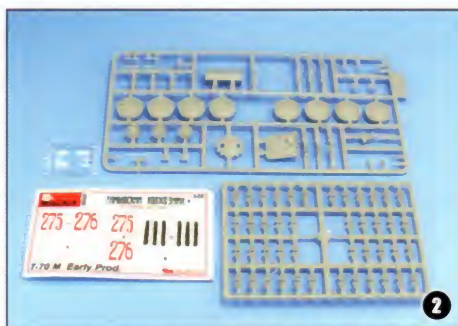
Joining the party for this project are two beautifully executed offerings by Aber. The basic T-70M photo-etch set is a two-fret enhancement that replaces, among other things, the fenders, supports and two stowage bins. The set includes additional items such as hatch details, a pair of screens and countless surface details. It also has lengths of small diameter brass tubing to create the turret hatch

operating mechanisms. In typical Aber fashion, the instruction sheet, although busy, manages to maintain a degree of reason and is not too difficult to follow. The second Aber set is a turned aluminum barrel for the 45mm 1938 model main tank gun, and an awesome replacement barrel for the 7.62mm DT co-axial machine gun.

For reference, I use a series of photographs from the excellent Prime Portal website. Admittedly, the vehicle in the pictures appears to be a late production tank while the MiniArt offering is an early version. I decide to build a tongue-in-cheek hybrid vehicle. Although I am usually a stickler for accuracy, I eschew convention and take full advantage of the kit and the excellent Aber sets while still incorporating many scratch built details based on the reference photos. I rationalize this decision by



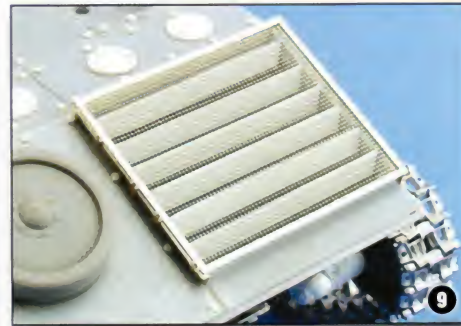
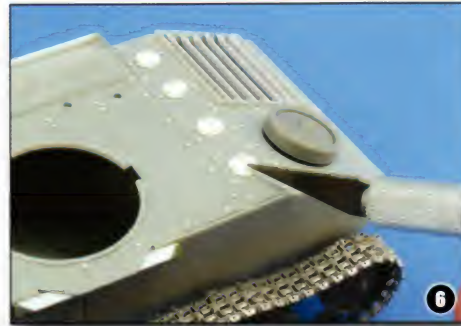
**1.** The three aftermarket detail sets I use to enhance the MiniArt T-70M. **2.** The contents of the kit, minus the major hull and turret components. **3.** This poor fit is the first of the



very few problems I encounter with this kit. This particular issue is easily remedied by careful gluing.







**4.** I like to leave small parts on the sprue whenever possible to facilitate cleanup. **5.** The rear plate with one of the scratch built idler axle housings in place. Later, lower each housing to allow clearance for the track below the fenders. Note the replacement hex bolt heads and epoxy putty welds. **6.** The circular plate retaining bolts are cut from .030 styrene hex stock. Note the Friul tracks and the epoxy putty welds on the strengthener. **7.** More hex goodies around the final drive plate. Note the new bolt heads

on the access plate and the wire loop fashioned from lead wire. **8.** Using references from the Internet, I alter the shape of the hatch to better resemble that a late version T-70. **9.** This photo really highlights the beautiful Aber engine screen. **10.** Curiously, I never manage to determine the purpose of the large sheet metal plate on the rear of the T-70—but it sure looks cool! **11.** A side view of the model prior to the installation of the photo-etch fenders. **12.** To accomplish a uniform bend along the Aber fenders, I

convincing myself that while Soviet factories were tooling up for the later version, they would still be manufacturing the early one—so overlaps would not be all that uncommon, right? Well, that's my story and I'm sticking to it.

### Hull nightmares

The lower hull (A1) is robust and all its angles appear to be perfectly aligned, which is remarkable considering its small size. The hull roof (A2), however, is another story. It is molded as a single piece along with the front and rear hull, and the entire three-faceted detail has a painfully obvious curvature. To remedy this, I glue the forward edge first, and once this dries I begin working my way rearward. Fortunately, the semi-soft styrene readily accepts Tamiya Extra Thin Cement to create a solid solvent bond. In a matter of minutes, I have a perfectly aligned hull structure with nary a hint of warp. Wonderful stuff, that TETC!

A quick run-through of the Aber instruction sheet reveals that a few areas of the kit hull require surgery right off the bat. For starters, a molded-on support gusset must be removed from the hull roof overhang on the left side. Instead of using the Aber detail, I replace this angle with styrene and then add seven bolt heads cut from .030 hex rod stock.

Next, the large inlet air box located on the rear

upper hull plate needs to be cut out to make room for the half dozen individual louvers in the Aber set. Having already glued the hull halves together, I chicken out on these photo-etch replacements. Instead, I opt for louvers made from .010 x .100 styrene strip, figuring they will be mostly hidden by an ultra-cool photo-etch screen anyway. I then install the photo-etch frame, followed by the screen and eight tiny ModelKasten wing nuts that replace the Aber offerings.

Turning my attention to the lower hull, I alter the shape of each tow shackle base plate and hook (A45 and A58) to match my references. Once these are installed on the hull, I add new bolt heads from .030 styrene hex rod. Voila!

A spring-loaded retainer flap accompanies each tow hook, which allows a cable to be held in place until the flap is manually depressed. To this day, modern Russian armor has the same feature, albeit a bit more refined. Aber provides some wickedly tiny parts to replicate this. However, MiniArt should be commended too—their two-piece affair is quite delicate and looks the part (no pun intended). I actually choose the original pieces over the brass replacements.

### Radiation

Aber instructs us to round off the top of the radi-

ator vent box. My reference photos, however, show a flat screen covering this area, so for the sake of accuracy I go with that. I further detail the box by overlaying a plate of .030 styrene onto the outer surface and adding some rough welds to each end with epoxy putty. I also put a pair of hex bolt heads on the forward and rear sides. While I'm at it, I replace the nut and bolt detail on the inside faces of the final drives (A12 and A13) with hex rod and .018 bits that I make with a punch and die.

Another area I choose to doctor is the rear idler axle housing. Using my late version references, I spend quite a bit of time on this detail. I construct the new units from .100 diameter styrene tube and discs and further detail them with hex bolt heads. When complete it looks a bit too large; nevertheless I think it's an improvement over the kit offering.

I can't resist adding a little texture to the relatively smooth armor plate. The molded-on bolt heads that covered the surface of the model look a tad too soft, so without further ado I lop them off with a new No. 11 blade. I apply some Gunze Sangyo Mr. Surfacer 500 to the surfaces, and then further reduce the primer with Testors Liquid Cement to add just the right amount of texture. After the Surfacer is dry to the touch, I salami-slice about a hundred bolt heads from styrene hex rod and re-apply them to the surface of the model. Later, I





simply sandwich the part between two metal rulers and use the top of my workbench to help roll the fender flange to a 90-degree angle. **13.** I use a length of .010 x .040 styrene strip glued to a .040 x .080 styrene strip to create the channel I need to positively locate the fenders to the hull. I later cover this strip with caked-on mud effects. **14.** The fender supports are simple affairs, welded to the hull rear plate then affixed to the inside face of the fenders via three nuts and bolts. **15.** The mud is a combination of Mr. Surfacers 500 and fine dirt. **16.** I solder one of the eight triangular-shaped supports onto the fenders. First, I tape it in place, and then further secure the detail to the fender with tweezers. I place small bits of low-melt solder at both ends of the support, then a gentle touch of the iron wicks the solder under the detail. **17.** I remove unwanted solder to help create a clean, fresh joint. Fiberglass pencils are indispensable for removing excess solder from brass details. **18.** The right side of the model

prior to priming. Note the gentle dents on the fender flange, the mufflers and clamps, and the thermal wrap on the exhaust pipes. **19.** Note how clean the brass details are. This can be attributed to both Aber's terrific engineering and my trusty fiberglass pencil. **20.** I stow a crate on the left fender, then cover it with an epoxy putty tarp and strap. Note the wire leads for the headlamp and klaxon. **21.** The model primed with Mr. Surfacers 1000, reduced with Gunze Sangyo Mr. Leveling Thinner for a nice, smooth finish. **22.** The base coat on the lower extremes is a custom mix of Tamiya Flat Brown, Dark Yellow and J.A. Green. **23.** The Friul tracks receive a bath in Blacken-It, which creates an ideal brownish-steel color, a perfect base for subsequent washes. I also lightly burnish the contact surfaces of the track with 400-grit sandpaper to reveal the shiny metal underneath. **24.** The turret, all tricked-out in Aber details and textured with brief applications of Mr. Surfacers 500.

gently sand each to a uniform height.

The kit's driver's hatch is appropriate for an early T-70, but I decide to go with the radically simpler design of the late version. I whittle away the details on the kit hatch and, using bits of sheet styrene and epoxy putty, fashion a new one that closely matches my photos. I texture the hatch with Mr. Surfacers 500, and while the Surfacers is still semi-soft I distress it using a dental pick and wire brush.

While I'm working on the hull, I also replace the four round access plates found on the rear upper hull with styrene discs. I texture around each plate with the backside of a No. 11 blade to represent torch-cut edges, and then, per my references, add three hex-heads apiece. I replicate other details, such as the wire handles on the inside face of the radiator box and the large transmission access plate, with lead wire.

### Tricky suspenders

The kit running gear, comprised of five pairs of wheels and arms, is delicate, to say the least. I find the attachment bosses for them a little less than accommodating. Actually, they are nearly impossible to fit. Each swing arm has a half-moon shaped shaft that is supposed to fit into the hull sides, locking the arm at the appropriate angle. Not! The interior floor plate, which itself forms a shelf for the arm, is too





**25.** The model painted with a custom mix of Tamiya J.A. Green and Dark Yellow, followed by washes of raw and burnt umber oils. The turret numerals are from an Archer 1:48 scale Soviet marking sheet.

thick and prevents the swing arm from fully inserting. It looks like a little surgery is in order.

First, I neatly remove the half-moon part of each shaft. After determining that the scale ground clearance is 0.35 inches, I cement four-inch long styrene strips together to form two supports reflecting that dimension. I temporarily glue each to the bottom of the hull to act as spacers. This helps me to position the road wheels. I then carefully glue each arm and wheel assembly to the hull, making sure each is square and true. I recommend leaving the styrene spacers in place for the majority of construction—I just don't trust this fragile suspension.

#### Frui love

Even though the kit tracks are reputed to be exceptional, I love Friul tracks and use them every chance I get. These are very delicate, so if you go this route take great care during assembly. I precut the supplied connector wire to about .30 inches and bend each to a slight angle before inserting into the links. This helps keep tension on the wire and prevents it from sliding back out. Following Friul's instructions, I dab a bit of superglue onto the wire afterwards to lock it in place.

While I'm on the subject of the tracks, let me mention one common criticism of this kit: the road wheels are too narrow. MiniArt's error influenced Friul to manufacture tracks that have the correct width, but whose double guide teeth are too close together. This is an easy mistake to overlook, but it would be remiss not to point it out.

Following Aber's concise instructions, I fashion and install the various clamps, clasps and hinges for the fenders. I do manage to turn the spare track bracket 90-degrees off position, despite the fact that both the MiniArt and Aber instructions define the correct location. Who really reads that stuff, anyway?

I encounter a dilemma while deciding how to attach the completed brass fenders to the hull. With nothing more than a narrow flange on the inside face, a superglue contact bond to the hull would be tenuous at best. My solution is to create a channel by gluing two dissimilar widths of styrene strip together, and cementing this to the hull at the appropriate height. The fender flange then slips

neatly into this channel, locking it in place.

At this point I decide to leave off one of the front fenders and flip the other back because I want to show off the tracks. This gives me an opportunity to damage the right hand fender by gently coercing it with both my fingers and pliers.

#### Detailing the details

I also scratch build a taillight and apply it to the rear plate along with the photo-etch panel. Next, I begin the super-easy process of building the stowage bins. I build one closed and the other open, just because it looks cool. I have to fidget with the small clamps on the bins, but a little patience and some of my favorite four letter words serve me well. I manage to lose only two of them. I detail the open bin with several epoxy putty rags and tarps, and toss in a cheater bar for good measure.

Moving on to other details, I modify the kit mufflers to give them a more accurate shape by adding a pair of convex end caps to each. I then glue the mufflers in place before adding the retainer bars, which are a breeze to bend with pliers. I then thread .015 brass rod through the bars and Aber nuts to complete the assembly.

I carefully remove the molded-on clamps of the shovel, sledgehammer and axe. I also give the shovel a new Aber brass head, and then install all of the tools in their proper positions.

#### Wrapping up

I decided early on to add the asbestos thermal wrap to the exhaust pipes, so now I waste little time cleaning up the plastic

versions before installing them. I add a couple of Aber hose clamps per the instructions before simulating the wrap with Milliput. While the putty is still soft, I texture it with a small piece of fabric, and then add tie wires with PlusModel 0.2mm lead wire. While I have the putty out, I also make a few tarps, bedrolls and straps to casually toss about the fenders, adding some visual interest.

The clear lens (62) for the headlamp has a significant sink mark right in the middle, so I replace the entire lamp with one scrounged from a Dragon kit. I detail both the lamp and the klaxon (42) with Aber parts and more lead wire.

#### Turret

Before mating the turret halves, I paint the interior white and give it a wash with brown oils. I paint the 45mm main gun green and pick out the breech with steel acrylic. While I'm at it, I paint the co-axial machine gun and gun sight semi-gloss black and fashion a new pistol port using scrap rod. I detail the port with scale chain.

I adorn the huge turret hatch interior with new Aber handles, a lock and a base plate for the periscope. The instructions are a bit vague regarding the location of the lock handle near the uppermost edge of the hatch. I install mine per Aber's drawing, only to realize later that it is incorrect. Meanwhile, the turret receives four neat brass tie-downs on the rear plate and three lift rings. I further detail these loops with Milliput welds.

#### Turret texture

The only major surgery necessary on the turret is to hollow out the mantlet with a drill bit so that it can receive a new Aber 45mm barrel and to lop off the barrel of the co-axial machine gun so that I can replace it with a brass one. I texture the turret sides with Mr. Surfacer 500, which I also use to embellish the mantlet to give it the rough-hewn appearance I see in my references.

#### Prime time

Once the assembly is complete, I prime the entire model with Mr. Surfacer 1000 thinned with Mr. Color Leveling Thinner. I shoot this mixture through my Paasche VL. Take care not to inundate the awesome intake and radiator screens

with paint, or you'll obscure their detail. Prior to

adding the base color to the model,

I use Mr. Surfacer 500,





**26.** The super-tiny Aber co-axial machine gun, the replacement headlamp, the quickly stowed starter crank handle and the awesome Friul tracks. **27.** The open stowage bin is a focal point of the model. Its interior is painted a blend of Vallejo Model Color Carmine Red and Red Leather. Note the subtle variation of tones on the armor plating, accomplished with successive layers of oils and pigments. **28.** The right side fender, mangled and dirtied with several applications of oils and pigments. Note the scale leaves that give the model an outdoorsy look. **29.** The rear right side, complete with tools, twin mufflers and thermal wrap, which was added to prevent the crew from burns. **30.** The subtle build-up of mud effects is evident in this photo. For this, I use several shades of Mig pigments.



Tauro Brown Dirt and clippings from Woodland Scenics tall grass to create my own concoction of sod. I apply this to the undersides of the fenders. Next, I give the undersides a thorough base coat of Tamiya XF-10 Flat Brown diluted with lacquer thinner. As it turns out, though, I could have skipped this step, since weathering all but eliminates the effect.

There's some debate regarding Soviet 4B0 green, with descriptions of the color running the gamut from pea-green to nearly black. I interpret the color to be quite similar to FS34102. With that in mind, I mix Tamiya XF-13 J.A. Green and XF-60 Dark Yellow in a 3:1 ratio and airbrush this mixture onto the model. I immediately apply a thin wash over the entire model using Mig's 502 Abteilung ABT-080 Wash Brown thinned with Humbrol Enamel Thinner. This tonal wash helps add continuity and depth to the monochromatic color scheme.

The rubber tires of the road wheels are painted with Vallejo Panzer Aces 70306 Dark Rubber on the outer perimeter and 70305 Light Rubber on the contact surface. I have some doubts that these two colors will work well together, but after seeing the results following the entire weathering process, I must say the outcome is spot-on.

MiniArt includes some nice, colorful markings, but as my model is a hybrid vehicle, I choose to add generic, non-unit specific numerals from a 1:48 scale Archer sheet. I seal these with a shot of Testors Dullcote Lacquer.

I want to carry some of the mud effect I previously applied to the undersides of the fenders over the rest of the lower parts of the model. To do this, I brush a mixture of plaster, brown dirt, a combination of Mig P028 Europe Dust and P037 Gulf War Sand pigments and water onto the running gear and hull. I enhance the mud effect by randomly applying thinned raw umber artist oils.

I treat the tracks with Blacken-It, and then weather them with oils and pigments. A brief scuff with a 400-grit sanding stick replicates the exposed steel of the cleats. Later I will tone down this effect

with a light wash of raw umber oils.

Next, I paint the interior of the open stowage bin with a blend of Vallejo 908 Carmine Red and 818 Red Leather to simulate the Soviet red-lead primer. To add a little contrast, I also add a dirty white shade to one of the rags draped over the edge of the bin. I paint the wooden handles with Vallejo 847 Dark Sand and streak them with raw umber oils to simulate wood grain. On the thermal wrap I use a combination of Dark Sand and 988 Khaki to create a dirty beige color.

#### And now for the weather

Now the real weathering begins. With Vallejo 042 Camouflage Black Brown, I add small chips in logical locations. This color is from Vallejo's Model Air line, so it is pre-thinned for airbrushing and you can use it straight from the bottle. Occasionally, I add a small dot or two of this color in the middle of various panels and spaces to break up the monotony. I don't like to go overboard with chipping.


I then apply a pin wash using raw umber oils thinned with enamel thinner. I concentrate this effect around the surface details, but also draw the excess away with a brush moistened with thinner to help create variances across the armor plating. All

the extra work spent replacing bolt heads really pays off at this stage.

#### Rusty muffler

Next, the mufflers get a coat of Vallejo 984 Flat Brown. Before this is completely dry I randomly scrub on Mig P024 Light Rust and P025 Standard Rust pigments. I stain a few places on the muffler with burnt umber and raw umber artist oils, and follow that up with a dusting of light orange chalk pastels on the bodies and P023 Black Smoke on the tail pipes.

I typically weather the model one area at a time, but I use all the media at my disposal simultaneously—oils, pigments, pastels and pencils—to achieve the results I am looking for. This yields a more natural appearance than following a fixed sequence. One of my favorite techniques is applying a thinned wash of raw umber oils, and then adding different shades of pigments to create an oily effect. When dry, this can then be scrubbed with a semi-stiff brush to create a realistic metallic sheen, similar to that found on fenders and other high traffic areas.

Overall, this was a very pleasant build. Incorporating the beautiful Aber set was a challenge, but not the daunting task it could have been. MiniArt has certainly given modelers everything we need to construct a tidy representation of this diminutive vehicle. The addition of numerous aftermarket sets really carries this kit to the next level. 

—Mike Kirchoff

## MMiR RECCE

**MiniArt T-70M Early Production Soviet Light Tank w/Crew.** Kit number 35025. Suggested retail price \$39.95.

**Aber Soviet Light Tank T-70M Early Production photo-etch detail set.** Set number 35202. Suggested retail price \$19.95.

**Aber Soviet 45mm tank barrel for T-70 Model 1938.** Kit number 35L55. Suggested retail price \$5.95.

**Friulmodellismo T-60/T-70 metal tracks.** Set number ATL-55. Suggested retail price €27.00.

**PlusModel Maple Leaves.** Set number 4034. Suggested retail price \$6.70.

**PlusModel .2mm Lead Wire.** Item number 230. Suggested retail price \$2.00.

**PlusModel .3mm Lead Wire.** Item number 231. Suggested retail price \$2.00.

**ModelKasten Wing Nut for German AFV.** Set number MDKA-4. Suggested retail price \$7.95.

#### References

Prime Portal. <http://www.primeportal.net>



# A Real Stalwart

More Aden action with AA's Alvis Stalwart Mk I HMLC



**T**he Stalwart amphibious truck, or “Stally,” served with the British Army of the Rhine in the 1960’s, where its sole purpose was to carry five tons of stores over rough ground and across rivers and lakes by means of its internal Dowty water jet propulsion system. Because of its unique maneuverability on land and in water, the military decided it would also be very useful as an artillery ammunition vehicle. Advancements in helicopter design, however, rendered the vehicle obsolete and it was officially retired from service in early 1992.

## Let’s roll: wheels and suspension

Accurate Armour’s Stalwart comes to you in a sturdy cardboard box, inside of which are a number of small zip bags containing finely cast resin parts. Also included in the kit are a photo-etch fret, clear acetate for the windscreens, plastic rod, a decal sheet and a length of string.

This project gets your attention right away with several tricky, complicated steps. Once these are out of the way, however, the assembly gets much easier. The construction sequence is explained in clear, full color instructional photographs. Work begins by adding the suspension and other fittings to the large, one-piece lower hull. Pay close attention when placing the dampers (parts 11, 23 and 27) to make sure that they face the proper direction—each has a small bevel on

the interior side that ensures the proper angle for mounting the wishbone units.

The next bit of tricky business, illustrated in the third instructional panel, involves the torsion bars that run along either side of the hull. Each bar appears to be one continuous length, but in fact is comprised of six smaller sections. Between the individual sections are a number of torsion bar adjusters (parts 29). Each of the torsion bar sections must fit flush with the adjusters, which requires careful sanding of each section to the proper length. This is not a difficult process but it does require diligence. I do find it difficult to fit one of the forward/center torsion bar sections (parts 24) that has to be squeezed under the steering bar pivot (part 14). Getting this part into position takes both gentle pressure and patience.

By far, the most time-consuming and frustrating stage of assembly are the four steps illustrated on page 5 and the top of page 6 of the instructions, which involve the suspension and steering systems. The model is designed to have the front wheels at approximately a three-quarter turn, which requires the mid-station wheels to be turned at an angle half that of the front wheels. Let’s do the math: four wheels set to precise angles, two hands, and all thumbs equals one frustrating session! On my first attempts I try to hold

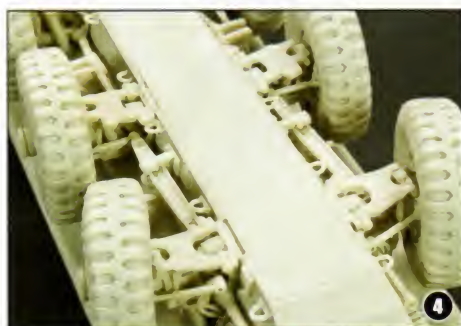
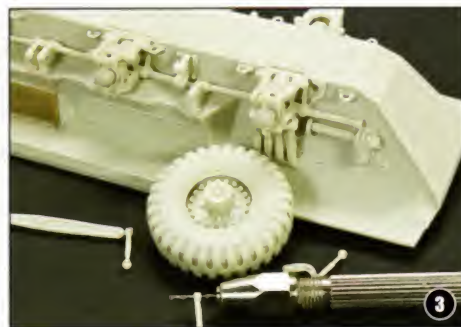
the front wheels at the required three-quarter degree angle while trying to place the steering arm and connecting steering bar to the second middle wheel station. The result is that I can’t hold the wheels at the proper angles and the entire assembly simply falls apart. Clearly, this is the wrong way to approach this section. After about two hours of unproductive and exasperating work, I set the kit aside for the night.

## New day, new enthusiasm

The next morning, with fresh resolve, I give it another try. This time, however, rather than starting at the front and working toward the rear I begin with the parts between the wheel pairs and work simultaneously toward the front and mid-wheel stations. I use the steering bar (part 22) as my anchor point, and then attach the steering bars (parts 19) to either end with Gator Glue. Gator Glue is a slow drying, water-based adhesive that is tacky enough to hold parts in place but also affords a good deal of time for manipulation before setting. This method works much better because I now have the steering bar and arm to aid with the wheel placement. The wheels are tacked using Gator Glue, adjusted and re-adjusted many times as the glue dries to ensure not only the proper angle but also that they all sit level. Phew! Finally, my wheels and suspension are properly affixed.

After this rocky start I was a little apprehen-





**1.** The lower hull is a single piece resin casting, onto which all the steering and suspension components attach. **2.** When fitting the suspension dampers, care must be taken that they are all facing the correct way. **3.** All the torsions that run along the length of the hull are in place. Fitting the forward sections is a bit tricky. **4.** With all the suspension components finally in place I can breathe a sigh of relief. The finished suspension does look really cool and is worth the effort. **5.** Accurate Armour supplies plastic card strips to make the reinforcing bars for the corrugated side-panel sections. These are cut to length using the dimensions included in the instructions. **6.** A fully detailed driver's compartment is included, complete with all the control levers and pedals. Thanks to the large roof hatches and the amount of windows this will all remain visible on the finished

model. **7.** The fully assembled "Stally" ready for a coat of paint. Note the delicate photo-etched exhaust guard. **8.** The first stages of painting involve a coat of Mr. Surfacer 1200 primer. This is followed by adding the British Army Deep Bronze to the driving compartment. **9.** I use Vallejo Black and German Camo Black Brown for the pre-shading, focusing mainly on the lower hull and suspension area. **10.** Before adding the sand and black camo pattern, I first lighten the upper surfaces with a spray of Tamiya XF-2 Flat White. **11.** The first of the sand shades is mixed from Vallejo German Camo Medium Brown and White to accentuate the vehicle's shadowed areas. I spray this color from underneath to the undersides of the surface details. **12.** For the second application of sand, I mix a lighter shade from Vallejo Tan Yellow and White to blend the darkest

sive about the rest of the project. Would the entire process be as tedious as these opening steps? Let's find out. The work continues on the lower hull areas. The headlights and photo-etch brush guards are added to the front, and numerous fittings, some unique to the Stalwart such as the Dowty Outlets and air line controls, along with the requisite tow hook and rear light clusters, are added to the rear. Ok, that's better... lower hull complete.

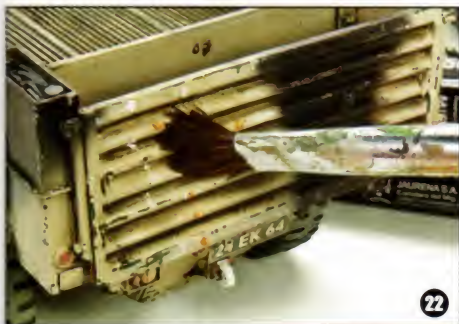
## Topside

In contrast to the small pieces and tight spaces of the lower hull, the upper hull construction deals with large panels and open spaces. I apply the tall bilge pump ports along the deck, and the 16 small drop side hinges. The drop sides are very nicely cast, corrugated patterned panels that are enhanced by the addition of plastic rod reinforcement bars. The bars are included in the kit as plastic strip, which I

cut to size per the instructions. In total, eight vertical and two horizontal supports are required to complete the sides. Accurate Armour gives you the option of displaying the sidewall in either the upright or dropped positions; I choose to install mine upright. The kit includes photo-etch for the 16 tie-down points along the outer sidewalls and for the mesh exhaust cover.

The big parts make for quick work, and soon it's





shadows, before a final light overspray of Vallejo Buff and White. **13.** The large disruptive camouflage stripes are airbrushed freehand using a mixture of Vallejo Black and German Camo Black Brown. **14.** Some neat data placards and instrument dial gauges for the interior. Note the blue colored fluid in the screen wash bottle. **15.** With some subtle weathering the detail of the driver's compartment really comes to life. **16.** Using a Scotch-Brite pad, I apply numerous chips and scrapes of darker green and browns as if the sand base had been worn away from the deck of the cargo bay. **17.** I continue the wear effects with a brush, adding a range of colors. The rule of thumb with this is that dark scratches go on the light base colors and light ones on the dark. **18.** To emphasize the shadowed areas, I apply Mig 502 Abteilung Shadow Brown to some of the details,

particularly the undersides of the sidewall ridges. **19.** An overall wash of Mig's Neutral Wash is now applied to the lower hull and suspension areas to enhance the overall grimy appearance. **20.** A mix of Mig Productions Striped Metal Drums and a selection of boxes from my spares box help to fill the cargo bay. **21.** I further enhance the depth of the finish I apply dots of 502 Abteilung black and red to add both depth and fading within the camouflage stripes. **22.** This same effect is used for the sand areas submitting Buff and German Ochre. **23.** The oil stains are made with Mig Oil and Grease Stain Mixture. This is the first time I've used this product, and it does exactly as it claims and produces realistic looking oil stains. **24.** Wet and dry Mig pigments are liberally applied to the model to build up layers of dust and dirt.

on to the crew cab. Although the construction sequence opens with the installation of the window latches (parts 98) and blower vents (parts 99), I strongly advise waiting to install these until after you insert the windows. And while we're on the subject of windows, the kit has a sheet of clear acetate out of which to cut them to shape. There are nine windows of varying shape in the crew cab and, for me, this proves to be another one of those fiddly,

time-consuming parts of the project. I recommend cutting the window to shape before you install any of the interior components so that you have clear access. Because of the many large windows and roof entry hatches, much of the cab will be visible. Accurate Armour has thoughtfully provided a very complete interior by including the crew seating positions, battery box, steering wheel, foot pedals, Dowty control levers and much more. Small location

points on the surface facilitate the installation of these components. The dash panel and fluid reservoir (parts 106 and 107) are other items that you may want to paint separately and set aside until after you install the windows. Instrument details and gauge faces are on the decal sheet—a very welcome enhancement.

Moving to the cab's exterior, most of the additions are to the roof, including the distinctive surf



deflector and the large access hatches.

Small handles made from brass wire are on either side of the cab. A feature directly related to the Stalwart's amphibious capabilities are the large, multi-panel trim vanes that mount to the front of the cab below the center windscreen. This feature would extend when the vehicle traveled through water, which helped both to break the water and to aid floatation. The Stalwarts serving in the Aden Theater, however, were prized for their excellent durability and cross-country mobility rather than their amphibious features. My research shows that Stalwarts in Aden were in service without the trim vanes, so I leave them off my model.

### Let's paint

Upon receiving this project I knew in an instant what paint scheme I wanted to use. While doing research for my other *Accurate Armour* article in this issue, I had seen photos of the Stalwart in service in the Aden conflict of the 1960's. As with most of the equipment sent to Aden, the material arrived in typical Deep Bronze Green. Once there, however, they were soon repainted in a sand color with broad disruptive stripes—stunning.

My usual procedure when working with resin kits is to begin with a primer coat of Gunze Sangyo Mr. Surfacer 1200 for a smooth, durable surface. Next, because this vehicle would have originally been painted green, I paint the cab interior with a mixture of Tamiya XF-67 NATO Green, XF-51 Khaki Drab, and XF-4 Yellow Green thinned with Tamiya Lacquer Thinner. I use the same color to do some pre-shading on other areas of the vehicle. After this, I use Vallejo 950 Black and 822 German Camo Black Brown for additional shading, focusing especially on the lower hull and suspension area. The final step before adding the sand color is to lighten the upper surfaces with a spray of Tamiya XF-2 Flat White.

I apply the sand color in a three-step process. First, I mix a dark sand color from Vallejo 826 German Camo Medium Brown and 951 White to accentuate the vehicle's shadowed areas. I spray this color from underneath to the undersides of the surface details, concentrating especially on the corrugated texture of the rear sidewalls. Secondly, I mix a lighter shade of sand from Vallejo 912 Tan Yellow

and White to blend the darkest shadow color and to add additional shading to certain elements. Finally, I lightly spray the palest shade of sand, mixed from Vallejo 976 Buff and White, over the entire vehicle from overhead, being careful to maintain the shading from the previous paint applications. The large disruptive camouflage stripes are a mixture of Vallejo Black and German Camo Black Brown.

### Getting dirty

With the base colors applied, it's time to get to the wear and tear. First, I want to show the heavy wear and abuse the cargo area would accumulate. Using a Scotch-Brite pad, I apply numerous chips and scrapes of darker green and browns as if the sand base had been worn away. I continue the wear effects with a brush, adding a range of color to my palate to show various types and age of wear. This process, like so much of weathering, is best done in short sessions over a period of time to give you a better perspective on your progress.

### Dust and scuffs

Next, I apply a light layer of dust over the whole vehicle with a mist of Tamiya XF-55 Deck Tan and XF-57

Buff, laying heavier applications to the lower surfaces and other areas where I felt dust would naturally accumulate. This misting layer also has the effect of aging the previous scratches and scuffs so that they appear to settle deeper into the finish. After the misting, I return for another session of applying small scuffs and scratches that represent more recent wear.

To emphasize the shadowed areas of the vehicle, I apply Mig 502 Abteilung 015 Shadow Brown to some of the details, particularly the sidewalls where I apply the paint to the undersides of the ridges. I further enhance the depth of the finish by applying 502 Abteilung 035 Buff and 092 German Ochre to the upper sand colored surfaces. I use dots of black and red for depth and fading within the camouflage stripes. An overall wash of Mig P222 Neutral Wash applied to the lower hull and suspension areas adds depth and enhances the overall grimy appearance.

### And more dust

I want to portray a Stalwart that had certainly seen its fair share of use, with the heavy accumulations of dust so often visible in period photographs. I use 502 Abteilung Buff and 125 Light Mud to lay a color foundation for pigments, applying them repeatedly in very thin washes to the areas of dust accumulation, particularly the crevices in the side walls. Once the oils dry, I apply numerous layers of Mig pigments (P234 Rubble Dust, P030 Beach Sand, P027 Light Dust) over the entire model. I apply the initial layers wet, mixing the pigments with mineral spirits. As a final touch to recreate the dust effects, I apply dry pigments to certain locations and fix them in place using Mig Pigment Fixer. I also apply some pigments to the tires (P237 Factory Grey and P023 Smoke Black) to accentuate their color.

### Load 'er up

My "Stally" was certainly a workhorse, so it needs a load to haul. The majority of the oil drums are from Mig Productions Striped Metal Drums set, with a few odd drums and crates coming from my spares box. The tarp covering the larger stack of crates is made out of







Milliput: simply roll the putty as thinly as possible over a piece of glass, using baby powder to prevent it from sticking. Once it's the right thickness, cut the edges to shape with a sharp straightedge blade and carefully drape it over the boxes. I spend a little time making the folds and creases look natural by using a soft brush to gently nudge the putty. I then leave it to set overnight.


Painting the stowage, particularly the barrels, allows me to add some extra color to the vehicle. I use Vallejo colors, first laying a base color and then masking and painting the secondary color stripes. I weather the barrels by using varying proportions of pigments and artist oils, attempting to give each barrel some individuality. The oil stains are made with Mig P410 Oil and Grease Stain Mixture. This is the first time I've used this product, and it does exactly as it claims: a drop or two placed around the fuel caps results in convincing stains.

#### Conclusions

Accurate Armour kits are always a joy to work

with. The casting, fit and detail of the parts are excellent. I did have my struggles early on with the suspension. For anyone considering this or any of the other Stalwart variants that Accurate Armour offers, I recommend that you carefully study the instructions first. I also advise you to work from the mid-point toward the front and middle wheel sets. Once I tried out this assembly sequence, the area

quickly fell into place.

For me, the Stalwart is a perfect subject choice—it is the third Accurate Armour offering in my series of vehicles serving in the Aden Conflict. A unique model in a relatively obscure setting makes for a very exciting project. 

—Rick Lawler

## MMiR RECCE

**Accurate Armour Alvis Stalwart Mk 1 HMLC.** Kit number K159. Suggested retail price £76.59.  
**Mig Productions Striped Metal Drums.** Set number 35-109. Suggested retail price €11.20.

#### References

Britain's Small Wars. <http://www.britains-smallwars.com/AVA/Richard-Bullock/page1.htm>  
 Alvis Stalwart Amphibious Truck. [http://www.olive-drab.com/idphoto/id\\_photos\\_stalwart.php3](http://www.olive-drab.com/idphoto/id_photos_stalwart.php3)  
 REME Museum of Technology. <http://www.rememuseum.org.uk/vehicles/warv/vehalvis.jpg>  
 Stollyfiles. <http://stollyfiles.blogspot.com/>  
 The Military Machine, *STOUT, STRONG & STURDY, The Alvis Stalwart Story, Development history* by John L. Rue, 1988, ISBN 3-9805216-0-5.



# A PEEK AT WHAT'S NEW ON THE FIGURE FRONT



## Alpine

Until someone comes out with a company called AAA Figures, Alpine looks to be the lead off batter for Mini-Men whenever they have new additions to their line. We usually see WW2-era subjects from these fellas, but they have been known to depart from that theme from time to time while still maintaining their excellent standards.

For example, **35069, Modern U.S. AFV Crew #1 (1)** and **35070, Modern U.S. AFV Crew #2 (2)** are perfect accessories for that Bar Armor Stryker or Abrams TUSK that you've been dreaming about. Both of these dudes are decked out in the new Army Combat Uniform with its digitally produced camouflage pattern. For body armor, they both wear the Interceptor Body Armor (IBA) that was in service up until early 2008. This body armor has since been superseded by the Improved Outer Tactical Vest (IOTV). Each figure comes with a Beretta 9mm in a thigh holster and two heads: either the new MICH-2000 Combat helmet or the Combat Vehicle Crewmember (CVC) helmet complete with flexible boom mike. 35071, Modern U.S. AFV Crew Set brings both troopers together in one package.

Now, back to that WW2 thing that everyone's always talking about. There are plenty of Afrika Corps figures out there, but rarely are they so elegant as **35072, German DAK Panzer Crew #1 (3)**, a junior NCO reaching for his smokes. He's wearing the M40 tropical tunic, shorts, and early issue M40 desert high-laced boots. The head choice here is between the tropical side cap and the M40 Bergmütze with some nice molded-on dust goggles. His tanning partner, **35073, German DAK Panzer Crew #2 (4)**, looks on with his hands thrust into his pockets. He wears the cotton drill fatigue uniform with unbloused trousers. He also has a head choice between the side cap and the Bergmütze. These two are also offered together as 35074, German DAK Panzer Crew Set.

## Battalion

We have seen an explosion of output from Russia and the Ukraine lately in both styrene and resin, which excites us in ways that we cannot expound upon in polite company. Battalion is a relatively new resin figure company that features a predominantly Russian theme (go figure...heh, heh). **35007LE, Modern Russian Soldiers (5)** is a complete vignette featuring a pair of grunts taking a break. They could be straight out of the conflicts in Chechnya, but because their equipment dates back to the Soviet era they have a lot of flexibility. Dressed for the cold in Delta Winter Jackets, they are easily distinguished by their fur collars. The Russian Army uniform and the Delta jacket come in a plethora of camouflage patterns and colors, so there's lots of room for painting fun. Over the uniform and Delta jacket, each figure wears a Kevlar-lined





armored assault vest. For headgear, both wear the SSh 68 "cone head" helmet. The sitting figure is armed with a PK/PKM light machine gun, the Russian equivalent of the M60. His partner carries an AKS-74, distinguishable by its folding stock. This weapon is usually issued to airborne troops. The super cool base with its discarded tire is furnished in the "LE" version of this figure kit only. Overall, the sculpting and attention to detail is excellent.

## Bravo 6

Welcome to 'Nam, cheese dicks. Now, follow me! Bravo 6 is yet another Russian company that has burst onto the scene lately. They have released a line called Vietnam '68 that will blow your hair back. The facial features and uniform details are uncanny. First up is **35001, U.S. Infantry Staff Sergeant Vietnam '68 (6)**. This bandana-wearing bad ass with the scarred face wears the second or third pattern OD Green jungle uniform that was made of rip-stop poplin, based on the M1942 U.S. paratrooper battle dress. His web gear is the M1956 type that was in general use from the late 1960's up through the 1980's. The small pouch on his chest is actually for a compass but was often used to carry a field dressing. On his feet are the second pattern jungle boots that featured a direct molded rubber sole and all canvas uppers. He carries an ARVN rucksack on his back. This backpack was developed in 1963 for the South Vietnamese Army, but was popular with U.S. troops as well. He packs some serious heat with the XM177E2 (a shortened version of the M16A1) and an M1911A1 .45 pistol. A bandoleer of 5.56 ammo is nicely molded on his chest. Like all of the figures in this line, he comes with M61 fragmentation grenades, M18 smoke grenades and a sheet of insignia decals.

The second figure from this theme is **35002, U.S. Infantry Private (1) Vietnam '68 (7)**. This fresh-faced troop looks familiar. He wears basically the same uniform as 35001, but with a few detail changes. His headgear is the good ol' M1 that dates back to WW2 with the leaf pattern camouflage cover that was in general use from 1965 until 1977. He carries an M16A1 and there is an M72 LAW rocket launcher under the top flap of his rucksack. These little resin babies are totally cool and you'll definitely want to get some.

As if that wasn't enough, these guys also turn out some nice WW2 figures. **35101, Soviet Military Cameraman 1943-45 (8)** is busily shooting the latest propaganda epic, *Hockey Girls in Heat*. He wears the dark grey 1943 pattern double-breasted coat and carries a captured Luger pistol on his Sam Browne belt along with a leather dispatch case. If you want, you could set him up filming **35102, Frozen German Tanker 1941-45 (9)**. This is one miserable looking Kraut wearing a castoff telegroika Russian quilted jacket. The bandaged head and ripped trousers ram home his unhappy state. This figure is molded as one piece, so there is nothing to do but cut him off of the carrier and paint.

You can check out all this and more at the Bravo 6 website, <http://bravo6.diorama.ru/>







## Des Kits

It warms our hearts to see Des back in the figure game with some brand new big scale releases. These guys tend to keep a low profile, but their stuff is always good. **12014-F, Ramcke Brigade Fallschirmjäger (10)** is an NCO from that intrepid little band of paratroopers that served under Rommel in North Africa. We have seen the Ramcke Brigade before, but never in 120mm scale. He wears the Luftwaffe cotton drill shirt and the distinctive tropical paratrooper trousers with the large left thigh pocket. He is fully equipped with the M37 paratrooper helmet, Zeiss-Umbral goggles, the ubiquitous German web gear, a map case and an MP-40. He is posed holding a map. We guess he's plotting a path through British lines after being cut off at the Second El Alamein.

Des also busted out a bust with **12015-F, Pathfinder 101st Airborne 1/502 PIR (June 6, 1944) (11)**. Screamin' Eagle fans are going to love the detail and portraiture on this little baby. The M1942 paratrooper tunic with 101st Airborne Division patch and gas detection panel on the left sleeve are distinctive to the D-Day invasion. We really liked the Thompson magazine pouches on his chest for a dangerous yet devilishly stylish look. He comes complete with a plinth. Can you say plinth?

## Dragon

Dragon continues their Gen2 efforts with admirable results. The anatomy of their figures gets better with every new release. With **6376, U.S. Army Tank Riders 1944-45 (12)** you get four dogfaces hitching a ride to Germany. They all wear the trousers and jacket from the M1943 combat uniform, which was a landmark in modern uniform development. It was an attempt to standardize battle dress between infantry, armor crews, paratroopers and mountain troops and was the first uniform to consciously use the layering principle for troop comfort and weather protection. It was windproof and water-resistant. The OD green combat jacket was well received because of its numerous large pockets. The trousers were usually issued one size larger in order to go over the olive brown woolen trousers that had the same basic cut. All of the figures come with M1936 pattern web gear, M6 gas mask satchels, M1943 entrenching tools, grenades and plenty of ammo pouches to go around. Gen2 weapons are here too, of course.

There are also some new releases in their simpler '39-45 series. **6380, Commonwealth Infantry Italy 1943-44 (13)** includes parts for six figures instead of the usual four. You can actually squeeze eight little Brits out of this set if you try. These figures are sort of multipose since you actually mix and match from sprues that share identical parts. The uniforms worn by these troops are virtually the same as those used in North Africa, so you could use them in this setting too. They all wear the Aertex cotton shirt, KD shorts or trousers, 1937 pattern webbing, Mk I helmets and ammunition boots with short puttees that were common to the Mediterranean theater. Small arms include Lee-Enfield rifles, Bren Guns, and a Thompson SMG.

Now for some Germans. **6455, 11 Frw.Pz.Gren**



**Div "Nordland" Vistula-Oder 1945 (14)** is a four-figure set in the '39-45 series. Nordland was a volunteer unit that saw heavy action from early 1944 on the Eastern Front right up to the end in Berlin. It was originally made up of Norwegians and Danes but ended up with foreign nationals from many other countries by war's end. The standing gent with the Russian PPSh submachine gun wears a 1942-issue SS greatcoat and a German copy of the Russian Ushanka fur hat. The trooper strolling along next to him toting an MP44 wears the SS pattern reversible field gray/white winter suit, riding trousers and the Filztiefel felt and leather boots. The kneeling fella with the Panzerfaust 60 is wearing what looks to be the white smock sometimes worn over the SS anorak for camouflage purposes. The officer carrying the Luger and Panzerfaust 60 wears a custom jacket over his uniform. This motley crew is pretty flexible since there was no specific battle dress uniform for foreign fighters. They could portray any late war SS unit dressed for a winter battle.

## Hornet

The need to add character to your figures can be fulfilled with one simple step: Hornet. Here are the latest additions: **HH14, 5 Heads with Typical WW2 Style British Berets (15)** are perfect since so many different British and Commonwealth troops wore them, and **HGH21, 5 Different Heads with German WW1 Field Caps (16)** are actually rather unique and (we hope) will provide an impetus for more WW1 subjects. We love these hats—we're wearing them right now, along with flared riding trousers.

Last but not least are the ultra-flexible bald dudes from **HH28, 5 Heads with Hooked Noses (17)**. Who said hooked noses are ugly?

## Mig Productions

Mig is always whippin' out some neat-o new stuff. Here's a look at some of their latest figures. **35-167, Lebanese Tanker (18)** is a young fighter taking five. On the package, he is shown with his right arm in a sling. There is also a nice snapshot of the fellow they modeled this figure after on the back. He wears a Russian black canvas tanker helmet, a Russian made 3-cell chest rig, and carries an AK-47. Feel free to go nuts with painting up his clothes since they are a mix of military surplus and civilian articles.

Also available is **35-171, Russian Scrounger with Panzerfaust (19)**. This is a late war infantryman on his way to Berlin. He wears a telegroika padded jacket over the 1943 model uniform. On his back is a PPSh-41 submachine gun with the 35 round box magazine. He totes a Panzerfaust 30 on the right shoulder. We especially like the extra magazine tucked into the front jacket pocket—or maybe he's just happy to see us. This was a nice touch and is really what sets resin figure makers like Mig apart from the plastic gang.

## MiniArt

MiniArt continues to do what MiniArt does best: making simple, straightforward and very flexible figure sets. On the Russian side, we have **35055, Soviet Soldiers, Riders (20)**. This five-figure set contains four







tank riders and a tank commander. All the figures feature early war uniforms distinguishable by the tab collars with subdued rank insignia introduced in the spring of 1941. Their armament consists of the standard Moisin-Nagant rifles and PPSH submachine guns.

Early model Russian field packs, shovels, and canteens are also provided for the infantry. The tank commander wears a standard one-piece coverall, leather tanker helmet and a Tokarev pistol holster.

MiniArt's latest set of little Germans is **35046, German Feldgendarmarie (21)**. You get four military policemen at work along with a driver figure. The driver leans out the window to hand the officer papers. Uniform details on the officer include the Feldgendarmarie gorget, cuff band, and sleeve insignia. This sleeve was silver for officers and red-orange (like the branch of service piping) for other ranks. The traffic wand wielding fella wears the waterproof motorcyclist coat that was very popular with the Feldgendarmarie. The final two figures make up a team posting road signs. A signpost and some printed signs are also included. All in all, this set is a great way to populate an early- to mid-war crossroads diorama.

#### Nemrod

Nemrod has broken off from the French and British theme to totally blow your mind with some of the best little devil dogs we've ever seen. **N35077, USMC at Tarawa Nov. 1943 (22)** is a pair of U.S. Marines wearing the Model 1941 herringbone twill two-piece dungaree uniform made distinctive by its single, flapless left breast pocket with the USMC logo. The 1942 camouflage uniform had a very similar cut if you want to do something more colorful. The unbloused trousers are a common sight in period photos. The M1 helmets have the two sided camouflage covers issued to Marines in the Pacific. Usually this was a green pattern on one side and brown on the other. The web gear they carry is pretty much the same as U.S. Army issue, as is the M1 Garand for the standing soldier. The kneeling Marine carries an M1928 Thompson, which was used only by the Navy and Marines. The detail and proportions for this pair are outstanding and leave us begging to see more from Nemrod on this subject.

#### S&T Miniatures

S&T is a perennial favorite here at MMiR for obvious reasons. There are few who come close to this level of sculpting. This time out we have a rockin' little trio of SS infantry from 12th SS "Hitlerjugend" during the Normandy Campaign. The Germans in Normandy used a wide variety of uniforms and equipment, so this setting always makes for a great diorama subject. We'll start out with **35015, 12th SS Normandy Schütz w/ K98 (23)**. He wears the M44 model non-reversible pea pattern uniform identical in cut to the M43 field gray uniform, and is fully kitted out with the ever-present Kar 98K and standard German web gear. The leader of this pack is **35016, 12th SS Normandy Scharführer w/ MP40 (24)**. He wears a second pattern SS camouflage smock that can be distinguished by the foliage loops on the shoulders and arms. This smock came



in a myriad of oak leaf patterns and colors and even the rather unusual plane-tree pattern. Underneath the smock is the M43 uniform and the low boots with gaiters first issued in the spring of 1943. His equipment is standard for an NCO: an MP 40, binoculars and associated web gear. The last of our intrepid little band is **35017, 12th SS Normandy MG42 Gunner (25)**, who is pretty special. He wears a one-piece camouflage coverall made up of surplus camouflage cloth, and looks a lot like a famous cover shot from a German propaganda magazine of the period. He carries the infamous MG 42 machine gun and all the standard gear you would associate with a German light machine gunner from WW2.

## Tank

The faint vibration and distant rumble that you hear and feel means that it's time to take a look at the latest from Tank of Russia. This time around they have endeavored to fill the hatches of JS-2 models everywhere. These figures were sculpted for that specific purpose, but could also be used on other Russian hardware from The Great Patriotic War.

**35099, Soviet Tank Crew JS-2 Summer 1944-45 (26)** is a pair for the turret hatches dressed out for warm weather. The tank commander wears the 1943 pattern gymnastiorka with the two button standup collar and shoulder boards. The row of decorations over the left breast pocket is a nice touch. He can be posed either leaning on the included DSHK machine gun or with both hands on the cupola. The crewman in the loader's hatch opening is leaning against the forward opening hatch and is dressed in the one-piece tanker's coverall we all know and love.

**35100, Soviet Tank Crew JS-2 II Summer 1944-45 (27)** follows the same general theme, but these crewmen have a more in-action look. They also look to be dressed for chillier weather. The tank commander wears the black leather tanker's overcoat as he peers through binoculars. The crewman firing the included DSHK and the one in the loader's hatch both wear telegroika padded jackets. We really like the inclusion of the DSHK in these sets—we found several pics from 1945 of JS-2s that mounted these weapons.

## Wolf

To round out this awesome edition of Mini-Men, we bring you a delightful little Brit from our pals at Wolf. **WAW 57, UK tankman, pixie suit Late WWII and postwar (28)** is just what the title states. He is dressed in the khaki-tan heavy tanker coverall first issued in 1943 and seen on British and Commonwealth armor crewmen throughout the late WW2 and early cold war period. This suit also came in a camouflage pattern like the British airborne smock, if you want to add some color. He is armed with a .38 Enfield revolver in a canvas holster and is a perfect accessory for the numerous excellent British armor kits available today.

*All figures were graciously submitted for review by the manufacturers.*





# MMiR Painting Guide

by Michael Rinaldi

Number four

## WWII French Armor in Morocco, 1942



**T**his model may come as a surprise to some of you. There are only a few FT-17 models floating around, and even fewer that are actually built. However, the FT-17 is a great subject to showcase the technique I want to focus on in this issue of the *MMiR Painting Guide*: dust—and I don't mean the kind that's gathering on all those kits piled up in your closet. Dust should be taken seriously when finishing a model. Its recreation is one of the true tests of superior weathering and one of the most critical aspects of any successful scale combat vehicle, regardless of theater, but especially on vehicles in service in the desert. Dust replication is a fundamental part of making a model look realistically weathered, and it can make or break the final look of your project.

It just so happens I was handed this partially assembled resin 1:35 Des Kit Renault FT-17 Model 1930 Light Tank a while back, and after doing some research into the vehicle I settled on an ideal paint scheme for showcasing dust accumulation and the

specific techniques used to recreate it. My Academy M3 Lee from the previous issue also dealt with the subject of dust as a primary form of weathering. In this edition of the Painting Guide, though, I want to work on something a little more exotic with a camo scheme that can be applied to other similar types of armored vehicles. Where the M3 had a monochromatic paint scheme, this model is based on a tricolor camo pattern, which is very useful for a great number of subjects—so don't get too hung up on the kit choice if you are not a fan of the FT series of tanks.

The camo scheme used on this early-war French tank includes the three most common colors on one of the primary schemes in use when the war broke out. This tank also provides a variety of surfaces to display more extreme levels of dry and dusty weathering. You know me—I love desert subjects. But even if they're not your cup of tea, many of these techniques and processes will apply to your own work. These same ideas might be used, for example, on a tricolor Panzer in mid-summer Normandy.

Des Kit's FT-17 is a good, but not yet the definitive

kit of this vehicle. While it is far better than the old RPM plastic kits (not a difficult feat), it is nevertheless riddled with many small issues of accuracy and detail. Like any full resin kit, it is expensive, and adding Friulmodel tracks on top of that doesn't help matters. I am not a huge fan of resin tracks, however, and I switch them out whenever possible—plus, this substitution gives me an excuse to demonstrate Friul track assembly again for those of you who have not yet seen it.

When guys write their wish lists for new kits, the FT-17 should be right up there. I would be thrilled if Tamiya would add one to their line-up. It would be right in keeping with their excellent Char B1s and Renault UE tractor kits. The number of different camo schemes this tank wore was staggering!

For those of you wondering aloud that this is only a WWI tank, rest assured it was used by the French army until the early days of WWII. Many were captured by the Germans and pressed into second-line service, some even serving until the end of the war.





**MODEL PREPARATION >>** The kit is a quick assembly of simple parts: the hull, turret and side suspension "pods." I make some minor corrections to the front hatches with styrene strip and two brass rod handles. Although not shown here, I prime the entire model with Gunze Sangyo Mr. Surfacer 1200, which is my usual practice.



**BASE CAMO COLORS >>** My FT-17 is based in Morocco in 1942. French camo applications from the mid-30's up until that time called for a tricolor scheme with an ochre yellow middle section, a dark grayish-green lower section and a red-brown upper section applied with hard edges. I first spray the entire model in ochre yellow, and then spray a 50/50 mixture of Lifecolor UA073 RLM75 Gray and UA077 German Fieldgray on the lower portion. For the hard edge, I repaint the demarcation line with a brush. This method is faster than using masking tape or Silly Putty. Once dry, I lighten the ochre yellow using Lifecolor UA107 Italian Sand Light Stone, which imparts a faded look. For the red-brown upper portion, I use UA137 RLM79 Sand Yellow, which I then lighten with a 50/50 mixture of the two yellows to blend them together visually. I'm going for a low contrast scheme in an effort to convey the impression of years of



**BASE CAMO COLORS cont. >>** desert service. If you want a model to display heavily faded colors, it is best to have this feature built directly into the base coat. This makes for a more efficient painting session and will ultimately yield a better and more convincing result. Trying to lighten base colors that are color matched to original paint chips is difficult and rarely successful. Capturing the look of faded paint over a dark base coat requires a lot of effort, including post-shading and the use of oil paints, but even if those efforts are taken into account it remains a fundamental rule of model painting that you cannot convincingly make a model lighter. So plan the fade from the beginning to save a lot of time and effort later on.



**AIRBRUSHING THE DUST LAYERS >>** If you've read many of my previous articles, you're probably thinking that I'm going to rely on pigments for my final presentation. Pigments are indeed the preferred method—in most cases. However, in this case I want a very fine layer of dust and faded paint, which is easier to recreate with paint instead of pigments. Thus I get a lot of the more difficult, time consuming work accomplished right at the beginning. Using the same Italian Sand Light Stone from before, I make a 50/50 mixture with UA099 Light Stone and thin it way down with about 70 percent thinner. I then carefully spray this mix from the bottom up, going around all of the bolt details, wheels, sponson sides and the upper flat surfaces. I work the mixture into the corners and anywhere else a natural gathering of dust would occur, and then streak it downward. You can clearly see this on the rear engine deck and the top of the turret, as it runs down to the front and sides. I keep my air pressure low for this procedure, at around 12 psi.





**MORE DUST LAYERS >>** Once I finish the airbrush work, I take the same paint mixture and use a brush to apply it as a pin wash to all of the smaller molded detail. Here, you can see the effect on the many bolts that cover the surface—a perfect reason to go through this process. Most armor subjects lack these features and it is a good idea to take advantage of them when they do appear.



**MARKINGS >>** French armor of the day sported the “cocarde” symbol on the turret sides and hull front. A large white serial number was present on the lower side sponsons. The decals are from the old Blast Models decal sheet BL35010D for France 1939-1940. Later I also add a hand painted French flaming bomb, symbol of the 63eBCC, and the tank number.



**EXHAUST PAINTING >>** The next step is to paint up the exhaust, which is quite a prominent feature on this little tank. For this process, I use the impressive Lifecolor Dust and Rust series of paints. I previewed this technique in the Hetzer article from the double Issue 42-43, and since then I haven't used anything else for painting exhausts. I find it to be one of the best processes by which to replicate such items. The first step is to prep the paints and thin them down, even though they are already pre-thinned in the bottle. The best results are achieved by layering the four colors on top of

each other in order (from left to right) of the bottles shown here, allowing some of the previous layer to show through. I like to thin them at least 50 percent with straight tap water. Then I take a round brush and paint the exhaust in each color, almost like applying a heavy wash. It doesn't need to be perfect, in fact, the more imperfections the better. The final step is to take UA701 Dark Shadow and apply it full strength. As you can see, the opacity of the darkest color is strongest on top, with the lighter colors bleeding through on the lower visible layers.



**APPLYING A PIN WASH >>** A very important step in the process of any model is the wash. I've come to rely on the pin wash method of application because it affords a great deal of control and yields very consistent results. The technique is to apply the wash specifically to each detail with a fine round brush—I like to use a #2 since it holds a fair amount of liquid while maintaining a very fine tip for precision work. I touch each detail lightly, letting the wash flow outwards as, for example, on a panel line. The bottle in this photo is actually a special mixture of two Mig Production washes, P221 Brown and P222 Neutral. The color is a brownish-gray, which is perfect for lighter camo schemes such as this one.



**PAINT CHIPPING >>** I've mentioned many times the importance and function of paint chips. Here we have a vehicle that's been in desert service for nearly 10 years, so it will obviously show some heavy signs of wear. And because the French Army in the late 30's and early 40's certainly wasn't spending any time or resources repainting these things on a frontier post like Morocco, chips and scratches are a must. I want these to be very fine and in very specific places. Admittedly, adding chips gets a lot easier with practice, but there are a few reliable methods to simplify the process. A great one is the “sponge technique.” This is exactly what it sounds like: dip the sponge in the paint, thoroughly blot it on a paper towel, and then use it to lightly dab or dry brush the model. I also add graphite to all of the running gear and road wheels.





**PAINT CHIPPING cont. >>** The first stage of painting chips is to lay down the lighter color, which should reflect the base coat colors. Once these lighter chips are applied, the rest is relatively simple. You need a fine brush in new or excellent condition and a suitable chip color, in this case a dark, gray-brown color. Then paint the center of each chip with the darker color, and—this for the critical part—you leave just a LOWER edge of the lighter color visible to give the illusion of three dimensions to the paint chip. This process confuses the eye into thinking the light is catching the edge of the chipped paint, which greatly enhances the aesthetic appeal of the chip. It may not be 100 percent realistic, but that's where art and modeling intersect.



**PAINT CHIPPING cont. >>** In these four photos, you can see the end result of the time and energy spent to replicate the chips on this model. It was honestly a lot of fun to do, and I think it looks remarkably natural. Can I believably make a model have as much paint wear as a vehicle in service really would? I hope so. I also want to point out the locations I chose to add them: the obvious places like the edges are always good picks because the crew would undoubtedly have been climbing all over the tank, but the harder ones to place are those on the hull sides and top plates because they are more random in nature. They are not technically more complicated, but it is more difficult to decide exactly where you want to put them, not to mention how many and what size and shape. I ag-

onize over their placement on every model. It is so easy to go overboard and I almost always feel like I end up with too many. Guys ask me all the time about it, and my standard recommendation is to apply about half of what you originally think is going to look good. This is easier said than done, I know, but I hope I have shown a fair amount of restraint and, more importantly, a good scale size for each chip. Pay close attention to the advice about the 3D aspect of each one and note how I have tweaked each chip layer to have the same or similar global light source, i.e., the sun. That way, when you turn the model the chips look consistent and the viewer doesn't get confused or overwhelmed by the effect. With paint chips, the goal should always be subtlety.

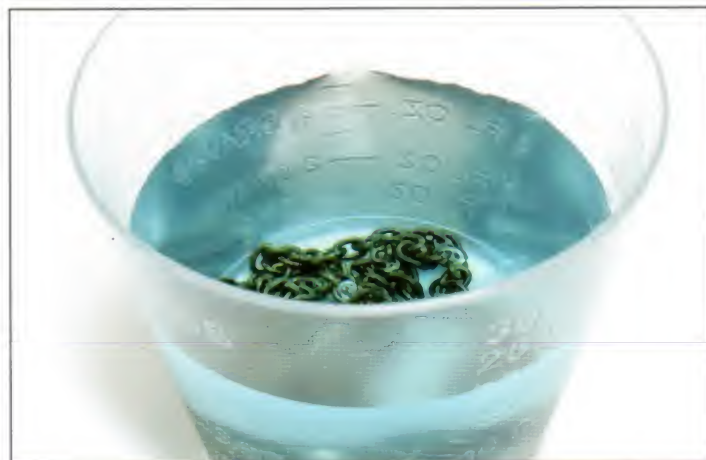




**YET MORE DUST >>** It probably comes as no surprise now to see me add more layers of effects. For this, I turn to more specialized paints in the Lifecolor range (you think I like this brand?). This is actually my first time using these two products, the first being the Lifecolor TSC202 Sand paint from the Tensocrom set, and the other the UA706 Dust Type 2 from the Dust and Rust set. I use both of these like a pin wash. The Sand imparts a darker, yellowish tint, the Dust is a much lighter color. Because of this, I use the Sand primarily on the lower areas and the Dust on the upper ones. On the lower portion of the unditching skid, which would have been frequently in contact with low



depressions, it's a good idea to represent some serious scratches. For this effect, I layer four colors of paint to accurately depict both paint abrasion and layers of dust accumulation. To do this, I use a fine round brush to apply the colors with strokes parallel to the direction of travel. The first layer is a very light green, followed by a whitish-tan to create the effect of light reflection, and finally darker colors of exposed metal. Note the two subtly different shades of dark steel color used for the metal; the darker one is actually the same dark color that I used on the exhaust.



**FUN WITH BLACKEN-IT >>** Nearly all photos of the FT series of tanks show large, heavy tow chains attached to the rear hull area. The kit doesn't include any, but fortunately I have some extra chains left over from the Char B1 project I completed last year. These are great little chains; in fact, I wish Tamiya would make them available as separate items. To finish them, I simply soak the chains in Blacken-It for about 5 minutes. Once dry, they are ready to mount on the model. Blacken-It, an acid etching solution, perfectly captures the effect of dark, rusted metal. In this photo, I am using a small plastic cup and enough Blacken-It to do the job properly. Use this product generously to get the best results.



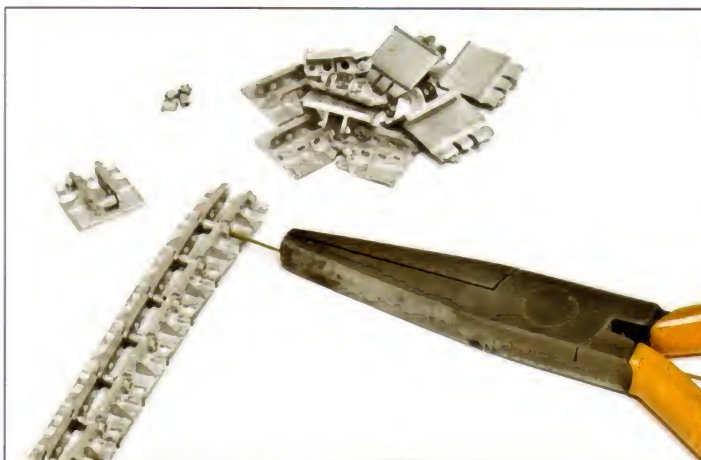
**TWO-PART EPOXY TARPS >>** The model still needs a little something extra. I don't want to add a figure (mainly because it can be difficult to find an appropriate one for this theater), so I decide to add tarps to the rear of the model. I used Magic Sculpt to create these, but any quality epoxy resin will work. I use the same process that I did on the M3 Lee: mix equal parts together and roll it out very thinly, until it is nearly translucent. Use a small amount of talcum powder to prevent sticking. After letting it set up for a few minutes, I cut out the necessary shapes and carefully add them to the model while adding realistic drapes and folds. Because this product dries slowly, I am able to work in folds until I'm happy with the result. I then let the tarps sit overnight to harden completely.



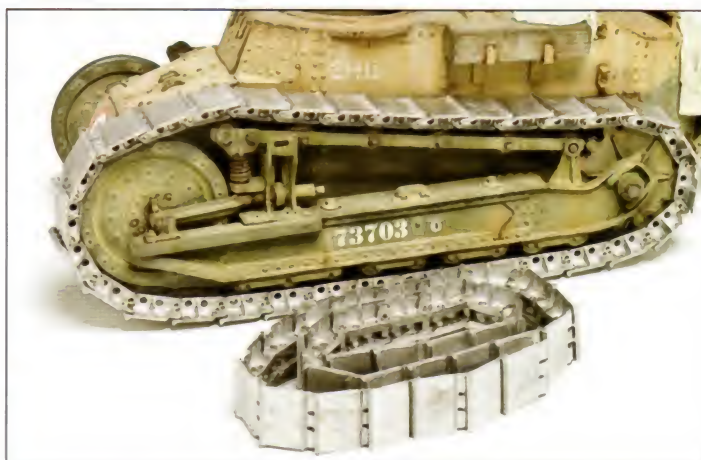


**OIL PAINT WEATHERING** >> Much has been made of this technique over the past few years, and a lot of unhelpful and misguided information has been the result. One of the most commonly made mistakes is referring to the application of oil paints as “filters.” While it is possible to make a filter with oil paint, that is not what is happening here. The idea when using oils for weathering is to enhance the colors of the paint job. In addition, you can use oils to create very convincing rust and other forms of discoloration. Whatever you are using oils for, it is very important to properly prep them. The linseed oil in the paints can leave a glossy residue and sheen on the surface of a model that takes forever to dry, even with the help of a hair dryer. Sometimes, in fact, it never goes away. In order to prevent this, place a small amount of each oil color you will be using onto a piece of brown corrugated cardboard—old boxes are a great source. I have tested many materials and this is by far the most effective; paper or hard cardboard will not absorb nearly as much oil. You need one brush for applying the oils and a second clean brush for blending them. Any style of small brush that works for you or your subject is

fine, and here I am only showing two of the more common types that I like to use. In a typical session, I use up to 10 different brushes, depending on the colors and type of blending that I am doing. The process is not difficult, but it does help to have a solid understanding of color theory. As with a pin wash, it is important to maintain control, so I like to start slow by choosing a few colors that complement those already on the model. Typically, my palette contains light tans, mid-browns, dark rust and shadow colors, with the occasional green when appropriate. Yellows, reds and blues are used much less commonly, while white and black are even rarer. I work in small sections, applying the appropriate color to the specific area that I want to enhance or tint. I then blend this in with a barely dampened brush—too much moisture will turn it into a wash. The method of blending depends on the desired effect. I use downward strokes for streaks and stipple for broader patterns. If you look closely at this photo, you can see the different colors used in each area.



**FRIULMODEL TRACK ASSEMBLY** >> Okay, I admit it. I love this part. Friul tracks are what really brought me back into armor modeling, even more than photo-etch and aluminum barrels. This set was by far the easiest and fastest to assemble. This might be repetitive for some of you, but for those of you unfamiliar with Friul tracks, they are white metal tracks that are assembled just like the real deal, by inserting a track pin between each link. Each set includes a roll of fine wire for this task, but I learned a long time ago that this is put to better use for wiring headlights. A much better alternative is brass rod stock. The best size for almost all Friul sets is 020”. The assembly line approach is the most efficient for assembly, so I get all of my links ready and tools prepped



beforehand. Rather than pre-cut the rod, I just place two links together and insert the rod with a pair of flat, smooth-jawed pliers, and then snip it to size. Add a link and repeat! Be careful not to push the rods out the other side because this can injure your fingers. If the links are uncooperative and the rod will not go through, take a pin vise with an appropriate drill bit and quickly clean out the holes. If a link is so stubborn that you find yourself getting really frustrated, just toss it and grab another—each set has plenty of spares. Because of the small number of links required for the FT-17, I am able to complete each run in about 30 minutes. After that, it's time for a good soak in Blacken-It.





**FRIULMODEL TRACK WEATHERING** >> Once the tracks are assembled, immediately rinse them off to remove any residual oil from your fingers. I then soak them in ordinary white vinegar for about an hour to remove any remaining traces of mold release. I dry them off, and then place them in a small plastic tub filled with Blacken-It. I like to use the clear, lidded kitchen variety (Glad products are perfect for this), so that I can gently shake them up and see the acid etching take place until I get the color I want. On this model, I'm going for a dark brownish color—but not too dark. When I'm satisfied, I pull them out, rinse them off and set them aside to dry completely. Use paper towels here, because the brown liquid will stain just about everything, and either wear gloves or wash your hands very thoroughly. Once the tracks are dry, I'm almost always very happy with the result. I've done this process so many times now (nearly 30 at last count) that I can remove them from the solution at just the right time. I will occasionally give them a second bath, but only when I want a very dark track. I avoid a second application as often as possible because it uses up a lot of the Blacken-It, which cannot be reused. I'm still not done, though—the tracks need a final coloring. Typically, a track set requires some rust colored washes and some pigments for dust and dirt. Here, I dust the tracks with Mig

P037 Gulf War Sand and P030 Beach Sand, and then airbrush the Pigment Fixer. I repeat this a couple of times to get the right coloring, but I try to keep the applications somewhat random so each link does not look the same. I then apply Mig P220 Dark Wash to each link hole and joint. These tracks, like those of many French tanks, were externally and, I believe, manually oiled. For further coloring, I selectively add the Brown Wash, which has a nice rust-colored tint, again keeping it random for visual interest. Almost every link is visible on this model, so it's worth it to invest some time in weathering the tracks.







**TARP PAINTING >>** I always find painting fabric and textiles to be a little tricky. Accomplished figure painters excel at this, but like any technique it takes a lot of practice and I always seem to need a little more. I'm pretty satisfied with the appearance of these tarps, however, and I like the French blue-gray color that they add to the model. I paint them first with a medium blue-gray acrylic, and add highlights and shadows with lighter and darker versions of it. I then go over the tarps again to add more highlights to the corners and edges, using standard figure painting techniques. Once I'm satisfied with the highlights, I add the dust to blend it into the model. I also add some stains and other discolorations that would result from extended use. I then carefully cut the end links open and placed the chains, fresh from their Blacken-It bath, around the rear tow shackles.

**LAST DETAILS >>** There isn't much left to do at this point. If you study the in-progress photos you will notice the addition of the tank number and French flaming bomb symbol. I hand-painted these; no special equipment other than a fine brush is required. The exhaust was constantly tweaked throughout the finishing process as the model evolved. These Friul tracks are not a perfect fit, despite the fact that the rear drive wheel is adjustable—yet another argument for a new kit of this tank. I'm anxious to see a kit of the FT-17 with modern tooling, and with any luck it won't be too long until one is released. New subject choices are slimming down, at least for the more popular vehicles, and the Renault FT series played a significant role in the history of armored vehicles. Tamiya, Dragon, Bronco—we are ready!



**FINAL THOUGHTS >>** Allow me to take a moment to reflect on the past projects I've done for MMiR. Viewed collectively, it is a series of models that addresses, both directly and indirectly, the importance of dust as a primary focus of the weathering process. The KV-1 addressed the effects of dust in a European climate, the Panzer IV DAK model addressed the difficulties associated with weathering a dusty sand camo color, and in this issue, both the M3 Lee and this FT-17 further address the effects of dust in an arid desert environment.

The various techniques and processes that I have used to represent dust should provide you with a solid understanding of the task at hand. I always pay close attention to dust effects when I'm evaluating models, both my own and others'. I cannot overemphasize the importance of this aspect of finishing. Others may disagree, but I have found this to be true for most armor subjects, and even some aircraft, cars and trucks. Our planet is a dirty one, and vehicles inevitably get dusty, dirty and muddy. Successful armor modelers must take this into account. Of course there may be some exceptions, such as vehicles in service in an arctic winter, but even then some dust is usually necessary to achieve a truly realistic appearance. There are even some winter LVTP-7's posted on the Internet that I'm tempted to try out just to prove my point—could be a cool subject for a future article. There are many worthy camo schemes to consider, what comes next will be a surprise, so see you then.





ACCURATE ARMOUR ■ ABER ■ MASTER BOX ■ RESICAST ■ ROYAL MODEL

# Psst! Have I got a secret for you!



Did you know that HobbyLink Japan carries many of the finest armor kits and accessories from all over the world? That's right! We not only have the world's largest selection of Asian armor products, our warehouse is jam-packed with tens of thousands of dollars of great products from Italy, the UK, Belgium, the USA, Poland and the Ukraine! Go to **[www.hlj.com](http://www.hlj.com)** to check out our huge lineup of items from companies like Aber, Accurate Armour, Formations, Master Box, MiniArt, Resicast, Royal Model, and more! Add these to our unrivaled collection of plastic kits, books and finishing products and you have a single source for all of your hobby needs—at the push of a button!

**HobbyLink Japan**  
[www.hlj.com](http://www.hlj.com)